Proposals

PROGRAMME OF INTEGRATED SERVICES FOR CHILDREN AND YOUTH IN THE CITY OF PATNA

Prepared by
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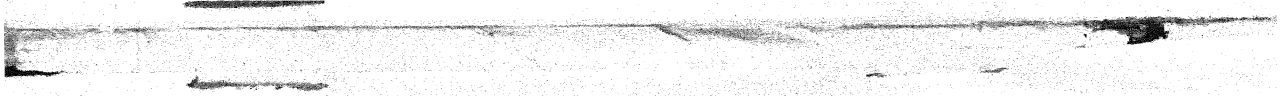

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PREFACE

In spite of the expansion of a variety of social services under the Five Year Plans, recent studies, including the one by the UNICEF 1/ have revealed that there are: (i) significant gaps in the provision of services, (ii) services are inadequate to meet the vast dimensions of the problem and the coverage is not uniform, (iii) the level of utilisation varies with the interest of communities and public participation and there is evidence of wastage and incommensurate results in education and health services and (iv) the programmes have generally ad hoc character and are carried out under the departmental auspices without adequate coordination and setting up of institutional services at the community level.

The Department of Social Welfare, therefore, set up a Working Group early in 1970 to provide guidelines for the planning of an integrated programme covering health and nutrition, education and vocational training, welfare, recreation and cultural development of children of various age-groups between 0-19 years. Some of the major recommendations of the Working Group were as follows:

i) City Administration should, within a period of 5 to 10 years develop awareness of the interests and needs of children and youth under its jurisdiction through integrated services projects.

ii) Whereas Municipal Corporation should provide the basic services, voluntary social welfare organisations should be encouraged to provide specialised services for children. Efforts should be made to generate the unutilised energy of people through their participation in citizens' organisation in the interest of child welfare.

iii) The project should cover all the important aspects of the development of the child.

iv) It will be desirable to select about ten different cities, in the first instance. For each project area surveys and studies of existing services should be carried and a detailed project should be formulated for each town on the basis of such surveys.

1/ Sindhu Phadke, Integrated Urban Projects for Children and Youth in India, UNICEF, South Central Asia Region, November, 1969.

v) The project should be implemented under the leadership of the local municipal bodies. To begin with the project should cover a period of 5 years but may be extended to a longer period.

vi) Emphasis should be laid on integration of services for the various age-groups covered under the programme. However for this purpose there could be a variety of possiblities in providing integrated services for children belonging to different age-groups. Broadly, the plan should have an integrated approach to the totality of needs with their respective priorities fostering positive attitude to purposeful collaboration among various agencies.

vii) Cities should be selected representing various functional criteria located in different parts of the country - the most important criteria being evident of interest and commitment to participate on the part of State Government, municipal authorities and the local community.

In response to a D.O. letter No.F.8/11/69-S.W.5 dated 11th August, 1970, from the Additional Secretary of the Department of Social Welfare, Government of India, and a reference from the Centre for Training & Research in Municipal Administration, IIPA, New Delhi, the Secretary to the Government of Bihar, Department of Local Self Government conveyed approval of the State Government in his D.O. letter No.731-LSG dated 6.10.1970 for the selection of Patna for undertaking studies and surveys for working out a plan of integrated services for children and youth. The A.N.Sinha Institute of Social Studies was selected in consultation with the Municipal Corporation and the Government of Bihar for undertaking this task. A draft report was prepared by the Institute under the guidance of its Director, Dr. Sachchidananda and this was discussed in some detail at a number of meetings held by the Secretary of the Local Self Government to the Government of Bihar. The representatives of the departments of education, health, social welfare and the Directorate of Medical Health Services of the Government of Bihar as well as the Administrator of the Municipal Corporation of Patna participated in the discussions and offered valuable guidance in the development of project proposals. The main outline of the proposals as well as the selection of the project area were finalised in the course of meetings held at Patna in the first week of August, 1972.

The demographic increase which has so much affected our urban centres, cannot but cause much human distress. This profound change and the very size of the expansion call for a service system to urban children which is both efficient and open to innovation. This report is designed to analyse the present condition and pattern of service to children. Perhaps to a greater extent than the earlier draft, this report has assumed a quantitative and qualitative character. But the statistical information, derived from various sources is neither comprehensive nor do they belong to the same time period. This in itself does, however, signify a serious gap. Hardly much of substance is known about the conditions under which a child in the deprived areas of our urban Centres is born and if lucky survives. Yet, despite this handicap of not having accurate data, relationship between quantitative and qualitative aspects do have a purpose. Attempts have been made in these proposals to relate the information available to planning proposals.

If the dynamic centre of Social Welfare Services to children is to have widening circumference, then the first emphasis in services is to begin with people living in the same neighbourhood. There is considerable evidence that point out to the effectiveness of small groups in cities. It is easier for people with a background of folk traditions to bring their problems and help solve them in an informal face-to-face setting. One of the features of the Patna proposals is de-centralised service delivery through the Balkendras. The main focus is on preschool children and the integration of lower level Health & Education staff within a geographical base. These proposals imply that a certain economy is achieved with a good chance of a qualitative impact. It also implies that a good foundation of understanding and functioning can be achieved between the community, the family, the children and the various service personnel. Provision for the other age groups are also there and get intensified with greater experience both of project Administration, client population and of local institutions.

It was with a view to involve the local community and the voluntary organisations in the field that contacts were made with Mrs. Nirmala Sohoni, President of the Bihar Council of Women; Mrs. Kala Vati Tripathi, Chairman, State Social Welfare Board; Mrs. Madhavi Prasad, President of the Bihar Branch of the All-India Womens' Conference; Mrs. Krishanbala Kshatriya, President, Nari Vikas Parishad; Mrs. Anne Mukhopadyaya Member, Managing Committee of the Red Cross and President of the Kurji Women Voluntary Organisation and Mrs. Manorama Bawa, Joint Secretary, Bihar Council of Women and a Member of the State Social Welfare Board. Mr. Ranjit Bhai, Founder Organiser

of the Kishore Dal also offered valuable guidance in the matter of organising children's programme. Our thanks are due to all of them for the valuable suggestions received from them and there is no doubt their cooperation will be valuable in the implementation of the programme.

I am thankful to all the officers of the Government of Bihar and the Municipal Corporation of Patna who have helped in the task from time to time. We are particularly grateful to Dr. R.P.Jamuar, Deputy Director and Dr. B.Mukhopadyaya, Director of Health Services for their guidance in evolving health proposals. Shri R.L.Bawa, Chief Town Planner of the Government of Bihar helped in coordinating the information from the various departments and in general we are grateful to him and to Shri K.M.Zuberi, the Secretary of the Local Self Government of the Government of Bihar, who took keen interest in getting the proposals finalised.

Dr. Indira Mahadevan, Project Specialist, prepared the report on the various proposals after spot visits and discussions with the various officers concerned, under the general guidance of Prof. Sachchidananda. This report is now presented for consideration of the Government of Bihar and the Department of Social Welfare, Government of India.

Feb. 2, 1973

(DEVA RAJ)
DIRECTOR (CMA)

Section - I

A PROFILE OF PATNA CITY

1.01 Patna known in ancient India as Pataliputra is the capital of the present State of Bihar. It has a history dating back to fifth Century B.C. and has continued to grow.

1.02 Patna is a linear city running east to west on a ridge, almost parallel to the Southern Bank of the River Ganga. Along its length the city measures about twelve miles and along its breadth, one and half miles at its maximum and less than half a mile at its minimum. While the Ganga always formed a barrier for expansion towards the north, any possible south-ward expansion was also greatly restricted because of the southern area being liable to floods from the River Poon Poon. However, it appears that the trans Ganga bridge to be completed in 1978 may in the future relieve the pressure on the city.

1.03 Patna city is divided into three Zones; the eastern-most, the middle and the western zone. The old city is in the eastern zone, this zone contains one of the biggest centres of wholesale trade. Contiguous to this zone on the west is the middle zone, covering an area roughly between the 'paschim darwaza' in the east and the Patna-Gaya Road (Now Buddh Margh) in the west. This zone which can be called the business and commercial core of the city also houses the bulk of the institutional, cultural and administrative buildings. It is the most overcrowded part of the city and offers striking contrasts in

living patterns within itself between the well planned and sparsely populated residential area of Rajendra Nagar and extremely congested and densely populated area of Sabzibagh, Bakarganj, Darzi Tola Mahendru and Lal Bagh. The project area for Integrated Services for Children and Youth lies plum in the middle of this congested area. The western-most zone or the new capital area differs significantly from the other two zones, with its modern buildings, well laid ring and radial roads dominated by a few hundred feet wide area with the State Secretariat and Raj Bhavan forming the terminal sectors.

1.04 A study of the growth of the city from historical time till today, indicates that the city has always tended to grow west-wards. As a result the eastern zone and to some extent the central zone seem to have amounted to neglect and degeneration.

Land Use and Master Plan

1.05 The present area of the city under municipal limits is about 11,506 acres (17.95 sq. miles). The urban limits of Patna is spread over 37 minicipal wards. The western zone consists of five wards (wards 33 to 37) and the new housing colony of Pataliputra; the central zone, of sixteen wards (wards 1 to 16 of which 5 wards are part of the project area) and the Eastern zone of the remaining sixteen wards (wards 17 to 32). The western zone has 38.37 per cent of the total urban area and 20.61 per cent of the total population, the central zone which contains

the project area has 27.06 per cent of the area and as much as 48.82 per cent of the population and the eastern zone, 34.57 per cent of the area and 35.57 per cent of the population. The zone-wise distribution of population and area is given in the following table:[1]

Zone	Area (acres)	Population	As percentage of total		Gross Density
			Area	Population	per acre
Eastern	3,977.4	1,29,655	34.57	35.57	32.6
Central	3,113.5	1,59,781	27.06	43.82	51.3
Western	4,415.0	75,158	38.37	20.61	17.0
Total for City	11,505.9	3,64,594	100.00	100.00	31.7

1.06 Thus in the central zone 43.82 per cent of the total population lives in 27.06 per cent of the total area available and has a gross density of 51.3 persons per acre.[2] And within this central zone in some wards (e.g. Bakarganj, Sabzi Bagh etc.) the "density is as high as 200 persons per acre."[3]

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1. Master Plan for Patna, Patna Improvement Trust, Vol. I p.iv/23 1962
2. The overall density of Patna city was 31.7 persons per acre, which is very much on the lower side when compared to other cities of India.
3. Master Plan, iv/23, 1962

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3. Master Plan, iv/23, 1962

1.07 The Master Plan of the Patna Improvement Trust envisages an extension of the present city limits to about 21,636 acres (33.80 miles). It expects that within this area the present deficiencies and future needs of the city will be met. According to this Master Plan, the break-up of the allocated land use is as follows:-

Land Use	Percentage
Residential	70.0
Commercial	1.94
Institutional (Governmental, Education and Cultutal)	6.25
Recreational	3.70
Artificial lakes	0.28
Industrial	5.40
Agricultural	5.32
Railway land	1.78
Cemetery, grave yard and milk colonym agriculture	5.33
Total:	100.00

Population characteristics

1.08 The city's population has increased by 170.0 per cent during 1901-1961, which is 3.5 times more than the overall growth of population in India.[4] It is approximately four times more than the population increase in the district at the same period.[5] The city of Patna accounts for 61.9 per cent of the

4. The population of Bihar State as a whole has been on the increase. The population density in 1961 was 267 per sq. km. and in 1968 it was 316 per sq. km.

5. In 1961 Bihar had only 8.4 per cent of its total population as urban as against 28.2 per cent in Maharashtra

total urban population of Patna district.[6] According to the provisional figures of the 1971 census the population of Patna city is 4,75,300 and 4,71,001 (excluding Pataliputra Housing Construction Corporation). This is expected to increase to 6,16,590 in 1981.

Age and Sex Structure

1.09 The provisional figures of the 1971 census indicate that for 1971 the city population consisted of 263,843 males and 209,153 females. Males thus comprising of 55.8 per cent of the total population.[7] Some possible reasons for this elevated percentage could be:-

1. The existence of numerous educational institutions which largely attract male students.
2. The city attracts a larger number of males than females from the rural hinterland.[8]

Further one interesting fact as the following table indicates, the relative percentage of males in the city of Patna is higher in all ages but more so in the age-groups 15 to 24 and 25 to 50 years.[9] This age group forms the bulk of the work force. One possible inference is that this is probably indicative of the urban character of Patna city.

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6. Census of India, Vol. IV, Part IX, 1961 - Bihar
7. In 1961 males comprised 56.5 per cent of the total population and females 43.5
8. For example, the Patna Improvement Trust estimates that in 1961 there were 12,000 rickshaw pullers and an equal number of domestic servants in the city who do not keep their families with them - Master Plan for Patna - Patna Improvement Trust, p. IV/23
9. Master Plan for Patna. PIT, p. IV/24, 1962.

Age Group	Percentage of males	Percentage of females
0-4 years	51.2	48.8
5-14 years	54.2	45.8
15-24 years	59.0	41.0
25-54 years	59.1	40.9
55 and above	54.6	45.4

Child Dependency

1.10 More than any other State except Uttar Pradesh, Bihar has the highest number of dependents, infants and disabled children below the age of 15 years in 1961. The percentage of children in the age-group of 0-14 years to the population in the productive age-group of 15-59 years is high and has been increasing since 1951. In 1951 the State ranked 6th in the child dependency ratio and 4th in 1961.[10]

	1951	1961
Bihar	72	81
All India	67	77

Slum and Urban Renewal

1.11 A sample survey of the housing conditions conducted under the auspices of the Patna Improvement Trust in 1964 indicates that "over 90 per cent of the houses in the city have no provision of sanitary latrines."[11] The accompanying table also indicates that 73 per cent of the buildings in the central zone

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10. Statistical Profile of the Children and Youth in India - A background paper prepared for the working group of Experts on Statistical aspects concerning children and Youth. UNICEF, 1967, E. Table 12

11. Master Plan for Patna p. VIII/76, 1962

Summary of Housing Survey of Patna

Zone	Number of buildings surveyed	Electricity	Buildings (%) water supply	With Sanitary latrines	Percentage of houses with Occupancy ratio %				Condition of Building* %			
					Less than 3 persons per room	3-5 persons per room	5-10 persons per room	Above 10 persons per room	A	B	C	D
Eastern	14,332	28.2	22.0	0.4	52.7	41.8	5.3	0.2	1.9	10.1	62.7	25.3
Central	20,862	43.7	99.1	6.6	51.9	42.6	5.2	0.3	9.6	17.1	59.7	13.6
Western	6,256	55.3	71.2	10.0	62.9	33.5	3.2	4.0	46.6	12.3	24.0	14.0
Total:	41,450	40.3	37.9	5.0	55.1	39.9	4.6	0.4	12.8	13.7	54.9	18.5

SOURCE: Master Plan for Patna, p.VIII/76, 1962

* Note regarding conditions of buildings

A = Pucca building - 10 years old
B = Pucca building 10-30 years old or new building with temporary roof
C = Obsolete pucca building and old buildings
D = Temporary structure and thatched roof

and 88 per cent of the buildings in the Eastern Zone are either old or obsolete.

1.12 The Master Plan further categorises Patna city slums into four types whose physical and socio-economic conditions vary greatly!

1. The rural-cum-urban pockets in the city with a positive bias for agriculture.

2. Where houses have developed without due regard to Planning standards or building regulations. Lohanipur (in Ward 11) and Chiraya Tarn (Ward II) of the project area belong to this category. Here in general "the conditions of houses are not altogether unsatisfactory and the inhabitants too do not belong to the sub-economic group. Only the houses have developed in an extremely haphazard manner without proper lay out and sanitary facilities."12 In Lohanipur for example of the 274 houses surveyed only 18 per cent had piped water supply and only .36 per cent had sanitary latrines and more than 65 per cent of all houses have mud walls.13

3. The Third type of slum comprises of areas which have "extreme over-crowding of buildings. The houses are separated by only 5 to 10 feet access lanes and here extremely unhygienic conditions prevail due to lack of sanitary facilities." Bakargung, Darzitola and Subzibag all within Ward 8 are in the project area.

4. The fourth type of slum comprises of areas that have degenerated into slums due to obsolescence. The construction of the new capital in the Western Zone and the university in the central zone has shifted the centre of gravity of the city towards the west. This coupled with the location of major employment centres, is also in the western and central zone has led to blight and decay of the eastern zone.

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12. Master Plan for Patna p. VIII/77 , 1962

13. Ibid.

Housing

1.13 In Patna City in 1964, of all the 52,248 residential houses 23.3 per cent are in the western zone, 40.9 per cent in the central zone and 35.8 per cent in the eastern zone, the central zone of the city is the most crowded with 6.9 houses per gross acre. Similar figures for eastern and western zones are 4.7 and 2.7 houses per gross acre respectively.

Residential houses per acre and number of persons per house in 1961

Zone	Area in acres	As % of total	No. of residential houses	As % of total	Residential houses per acre	No. of persons per residential house
Eastern	3,977.4	34.57	18,711	35.8	4.7	6.9
Central	3,118.5	27.06	21,385	40.9	6.9	7.5
Western	4,415.0	38.37	12,152	23.3	2.8	6.2
Total:	11,505.9	100.0	52,248	100.0	4.5	6.8

1.14 As the following table indicates the average household size in Patna City is 5.57 persons per household. Family size is largest in central zone with 5.76 persons per household followed by eastern zone (5.46 persons per household) and western zone with 5.01 persons per household.[14]

14. Master Plan p. VIII/79, 1962

Household Size

Zone	Household population	No. of household	Average household size	Number of residential houses
Eastern	1.29,245	23,685	5.46	18,711
Central	1,58,479	26,591	5.96	21,385
Western	70,231	14,013	5.01	12,152
Total:	3,57,955	64,289	5.57 (Gross)	52,248

1.15 The Patna Improvement Trust projecting housing needs for the city comments "Taking into consideration the present household population (3,57,955) and the average household size (5.57) the present requirement of housing works out to 64,289 dwelling units (du) and the present deficiencies to 12,041 du (64,289 - 52,248 = 12,041). This deficiency, however, does not include the requirements that will be caused due to clearance of dilapidated or obsolete houses or due to the thinning of overcrowded areas from residential to non-residential uses as proposed in the Master Plan.[15] The comment ends ominously, "the clearance will affect large percentage (73 per cent) of the existing houses in the city.[16]

The PIT further gives the following analysis of the housing needs:

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15. Master Plan for Patna, p. VII/79, 1962

16. Ibid.

1961

(a) Existing households (size 5.51 per household)	64,289
(b) Existing residential houses	52,248
(c) Existingg obvious shortage	12,0[illegible]
(d) Houses to be rebuilt due to	
i) Obsolescence	
ii) changes in density	38,141
iii) changes in land use	
(e) Therefore immediate need (12,041+38,141)	50,182

1981

(f) Projected number of households (household size 5.11 (total)	1,18,575
(g) Increase in households in 20 yrs.	54,186
(h) Need of dwelling units due to natural increase (spread over 20 yrs.)	54,286
(i) Total number of dwelling units required to be built by 1981 (50,158+54,286)	1,04,468

1.16 Thus the housing needs are so acute that in terms of numbers this will necessitate the construction of 5,223 new dwelling units every year and in terms of land area, development of 400 acres of new residential area and the redevelopment of 100 acres of obsolete area every year.

River front being situated on the southern bank of the River Ganga, Patna city has 11 miles of river-front stretching along its entire length. But this unique advantage is wasted. The Patna Improvement Trust is optimistic enough to say that "the possibility of the River Front being converted into

a pronenada has to be explored even if this has to be done on a limited scale[17]

Water and Power Supply

1.17 Plenty of pure drinking water is available at a sub-soil depth of about 600 feet. The entire water supply of the city is drawn by tubewells and works on a decentralised system. This is good since it localises pollution or break-down in water supply. The daily per capita water supply is 40 gallons, but the entire city is not covered by water scheme.

1.18 Patna's present demand of electrical energy is approxmately 13,500 kvs. and the supply is about 11,500 kvs. About 75 per cent of the total population and 68 per cent of the total buildings of the city enjoy electric facilities.

City cattle

1.19 A large number of unhygienic and unsanitary mixed cattle stables are located in a haphazard fashion in the most congested areas. The growing cattle congestion combined with indiscriminate dumping of cattle dung and lack of proper sanitary facilities in the cattle stables constitute a serious health hazard.

Health Services

1.20 Patna has only three general hospitals -

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17. Master Plan for Patna, p. XI/114 , 1962

a) The Patna medical college in the central zone with about 1395 beds. The maternity wing of the hospital has about 130 beds.

b) The Patna City Hospital in the eastern zone

c) The Kurjee Family Hospital.

All the private hospitals in the city put together have a bed capacity of 369. Specialised hospitals like the Tuberculosis centre, surgical hospital, infectious diseases. Hospitals are located near Ward 8 and Bedar Mani.

1.21 The Bihar maternity and child welfare society started in 1928 established four new centres between 1928-1945, one of which is located in Sabzibagh (Ward 8) of the project area. This MCH Centre is being rebuilt to house the MCW and Family Planning Centre.

1.22 A school for training lady health visotors situated near Patna City hospital has a provision to train 300 trainees in a 2½ years integrated course. However, their experience has been that not many students come from within the State.[18]

1.23 The health services of the Patna Municipal Corporation has one health officer and three assistant health officers for the three zones. There are 21 sanitary inspectors, 110 sanitary jamadars and 74 truck drivers for the 37 wards. The Corporation has 664 drain cleaning sweepers for 143.52 miles of pucca drains and 61.16 miles of kuccha drains. The existence of a large number of open drains and service latrines and inadequate

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18. The Maternity and Child Welfare in the State Capital in the Patna Municipality Centenery Souvenir, 1954, p. 55

drainage system in most parts of the town and particularly in the central zone is responsible to a great extent for the insanitation of the town.

1.24 The total number of latrines in Patna is 40,277. Of these 35,864 are of service type privatelatrines and 3,795 septic tank private latrines.There are 233 service type public latrines and 385 public septic type latrines in the city. According to the Patna Municipal Corporation the situation regarding the service latrines is critical, "A large number of service latrines are to be replaced by sanitary latrines. Otherwise, the sanitation of the town cannot be brought up. The Corporation is feeling the difficulty in getting adequate number of mehtars for cleaning night soil specially in the city area".[19] The figures below will give the present position regarding the number of service latrines and other latrines.

Total number of holdings	46,700
Total number of holdings with sanitary latrines	968
Total number with service latrines	26,947
Total number of holdings with no latrine	18,765

Thus most of the holdings have either service type or no latrine at all. The Corporation has already taken some measures.

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19. S.N. Sharma, Medical Officer, Health Services of Patna Municipal Corporation in the Patna Municipal Corporation, Centenary Souvenir, 1954, p. 57

1. It has banned further construction of service latrine. No new plan is sanctioned unless there is provision for service latrine.

2. Grants loans to rate-payers for conversion of their latrines.

3. The Corporation has constructed 147 new public latrines and 100 new urinals but according to the Corporation these are not at all efficient. About 500 more public latrines and urinals, are required which is not within the financial means of the Corporation.20

Immunisation

1.25 The Corporation maintains permanently 13 vaccinators, 4 permanent and 12 temporary inoculators and 11 permanent and 12 temporary disinfectors. There appears to be a great need for public education. The Corporation Officer commenting on the insanitary habits of the people writes, "unless the people themselves feel the responsibility of keeping the city neat and clean and develop sanitary habits, the problem of keeping the city clean by the Corporation staff alone cannot be solved successfully"21

Life Expectancy

1.26 The insanitary conditions in Patna city find reflection in the vital statistics. Although particular data for Patna city is not available, the data for the whole of Bihar has some relevance. In 1961 the expectation of life in Bihar was next to Assam, the lowest in the country with 37.6 years.

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20. Ibid. p. 57

21. Ibid. p.57

1.27 The Bihar annual death rate per 1000 population by sex in the urban areas was as follows:[22]

	Male	Female	All
Bihar (Urban)	8.36	8.41	8.38
All India	8.04	7.92	7.98

1.28 The more important factor about the death rate is the child waste. 48.2 per cent of the total deaths were between the ages of 0-19 years the following table gives an age-wise break-up:

Deaths in age-group 0-19 years as per-cent of total tdeaths in 1962[23]

	Under 1	1-4 yrs.	5-9 yrs.	10-14 yrs.	14-19 yrs.	0-19 yrs.
Bihar (Urban)	17.0	12.9	6.8	5.8	5.7	48.2
All India	19.3	17.3	5.2	3.1	5.9	50.8

1.29 Further Bihar State ranks third in the country in infant mortality rates. As the following table indicates that the infant mortality rate per 1000 for urban Bihar is significantly higher for both male and female than the All India average. The difference being as much as 36.06 per thousand.[24,25]

22. National Sample Survey (18th round) Feb., 1963, Jan., 1964 Differential Fertility and Mortality rates in India
23. India: Ministry of Health, Health Statistics of India (1961-62)
24. National Sample Survey, 18th round Feb. 1963 - January, 1964 Differential Fertility and Mortality rates in India
25. Infant deaths and infant mortality rates are under-estimated due to under registration. The degree of under registration can be judged by comparing registered infant mortality rate of 81 (for all India in 1962) with the estimated rates of 134 given by the office of the Registrar for the year 1960.

	Males	Females	All
Bihar (Urban) (combined sample)	123.64	84.59	105.93
All India (combined sample)	87.58	81.56	84.67

Maternal deaths per 1000 for urban Bihar ranked highest among the States.[26]

	Bihar (Urban)	All India
Neonatal (combined sample)	72.89	44.56
Postnatal (combined sample)	33.04	40.12

Again the differential between the All India neo-natal deaths and Bihar (Urban) neonatal deaths are as much as 28.33 per thousand. On the other hand the number of medical institutions per 10,000 occupied residential houses in 1961 in Bihar was 2.85 and for Patna district 3.09. This includes hospitals, PHCs, maternity, and child welfare centres and T.B. clinics, The number of medical doctors per 100,000 population in 1961 was 47.73 doctors for Bihar and 89.57 for Patna Dist. Similarly, the hospital beds per 100,000 population in 1961 for Bihar was 21.87 beds and Patna Dist. 59.66 beds.[27]

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26. National Sample Survey, 18th round, Feb. 1963-1964 Differential Fertility and Mortality Rate in India
27. Census of India, Vol. IV, part IX, Bihar, 1961 p. 352-358.

Employment Characteristics and Levels of Living

1.30 The Economic Status of Patna City is indicated by the employment position in the three zones in Patna.

Zone-wise distribution of Working Force: 1961[28]

Zone	Total Population	Workers' Number	Percentage of total	Non-workers Number	Non-workers Percentage of total
Eastern	1,29,655	40,501	31.2	89,148	68.8
Central	1,59,781	52,108	32.6	1,07,073	67.4
Western	75,158	24,924	33.1	50,234	66.9
Total:	3,64,594	1,17,539	32.2	2,47,005	67.8

1.31 Thus in the central zone only 32.6 per cent of the total population are employed. The relative percentage of the working force in the three zones show a marked imbalance in favour of men. In the Central zone 91.6 per cent of the total working force were men and only 8.4 per cent were women. The incident of women as part of the work force was also the lowest in the central zone, with 16.1 per cent in the eastern zone and 9.1 per cent in the western zone.[29]

28. Master Plan for Patna, PIT, Part V page 35

29. Master Plan for Patna, PIT Part V/36

1.32 Similarly in the whole city 2.3 per cent of the age-group 5 to 14 years are gainfully employed. However, here the situation is in the reverse. Only 2.52 per cent of the male population of this age-group are employed while as much as 4.48 per cent of the female population of this age-group are employed. Whether the value of education is understood but applied only to male children of the community needs to be assessed.

1.33 As regards occupational distribution in the city, services like health, education, public administration, domestic service, recreational and business provide employment to as much as 45.45 per cent of the total working force.[30] Unlike some other urban centres primary industries offer employment only to a very few.

1.34 The present work-force of Patna city which is 32.2 per cent of the total population supports the rest of the population (39.02 per cent of the total population in 1961 constituting children between the age of 0-14 years). This burden is all the more understood if we look at the per capita income. The per capita income for Bihar was Rs. 217 and Rs. 251 for Patna Dist. The annual income per household in 1961 for the whole of Bihar was Rs. 1,205 and for Patna Dist. Rs. 1,545.[31] Bihar is one of the States with lowest incomes. There is no recent data on the distribution of urban income in Bihar. Prof. Bose,

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30. Census of India, 1961, Bihar

31. S.R. Bose: Income and its Distribution in Bihar. K.L. Mukhopadhyoy, Calcutta, 1969. p.50

However, deduces, "We have the results of a sample survey of urban households in Bihar conducted in connection with the study of unemployment in Bihar in the year 1954 (the data was based on 4,716 households from 15 towns spread over almost all the districts of Bihar This study shows that the percentage of households with income of Rs. 3,000 and above (those who come under the purview of paying taxes) was 14.5 per cent in 1954 (NCEAR data 1960-61). At the other extremity of the lowest incomes, we may presume that households with annual consumption expenditure not exceeding Rs. 100/- consume their entire income; and, therefore, their income may be taken as consuming expenditure. The proportion of such households (according to N.S.S.) was 37.5 per cent." This coupled with the fact that in 1961[32].47.76 of the total population of Patna city were children indicate to a measure the sub-economic levels existing in the city.[33]

Education

1.35 Patna university, the oldest research and academic institution, in the State, is located in theCentral zone, to the north of Sabzibagh (Ward 8). There are ten constituent colleges including the medical college which are located in a belt. Two other colleges, also situated in the central zone area (Patna womens training and college and Magadh Mahila College) form another group. Tibbia College is another of the

32. Ibid. page 55

33. A recent survey conducted by the Federation of Indian Chambers of Commerce indicate the 49.4 per cent of the total population of Bihar had a consumption rate of below nationally desirable minimum of Rs. 27/- p.m. for rural and Rs.40.3 in urban area. The Hindustan Times, October 16, 1972

educational institution located in the project area.

1.36 In particular the Patna Medical college which is close to the project area is well equipped offering specialised services. However, the hospitals expanded services for outdoor and indoor patients is unable to cope with the demand because there is a general lack of dispensaries, health clinics, MCH Centres etc.

Schools

1.37 In Patna city according to a recent exhaustive survey conducted by the Bihar State Institute of Education, there are 174 schools run by the Patna Municipal Corporation. Of these 155 are managed by the Corporation, the rest are aided.

Number of Schools in Patna City, 1971

	Boys	Girls	Total
Middle	55	12	67
Higher Primary	39	19	58
Lower Primary	19	11	30
	113	42	155

Those aided by the Corporation were:

	Boys	Girls	Total
Middle	2	2	4
Higher Primary	3	4	7
Lower Primary	-	8	8
	5	14	19

1.38 The survey revealed extreme deficiency in school accommodation and equipment.[34]

i) Out of 132 schools only 50 had its own building. 63 schools were in rented building. In all these one or more classes were held in each room. Twenty schools have the shift system.

ii) Very few schools had their own playground. Only 51 schools had any space.

iii) 60 schools did not have any toilet. 63 schools had, but these were of the service type and 6 schools had septic latrine.

iv) Of 152 schools only 38 had facilities for drinking water.

v) Most schools have no adequate space or sitting arrangement.

vi) Most schools had none or limited teaching aids. For example, of the 132 schools, 56 schools did not even have a map and 96 had no globe.

vii) No science kits are supplied to any schools. Only 7 schools have science kits and these have been supplied by the State Education Department.

viii) There are no arrangements for any vocational guidance.

ix) Of the 132 schools only 71 schools have any library.

The Patna Municipal Corporation spends Rs. 32,86,090 on education. Out of this the Corporation receives Rs. 25,60,958 from the State, but it also pays Rs. 1,00,000 to the State Government to the Education Cess. In 1971, in the Corporation schools the enrolment was 33,611. The per capita expenditure works out to Rs. 97.8 As a comparative statement, the All India per capita expenditure on every child in middle schools is Rs. 45.

34. Study of Primary Education of Patna, Bihar State, Institute of Education, Patna, 1972 (in Hindi)

Thus the Corporation almost spends double that of Bihar State. The Institute of Education concludes, "It appears that whatever, the Patna Municipal Corporation spends on education, there is no adequate return".[35]

Pre-school Children

1.39 The projected figures for children between the age of 0-3 and 4-5 years for the city of Patna is expected to be as follows.:[36]

Projected Age and Sex Composition

		1971	As percentage of total population		1981	As percentage of total population
0-3	M	22704	4.8	M	28363	4.6
	F	20812	4.4	F	27747	4.5
4-5	M	11910	2.5	M	14798	2.4
	F	10005	2.1	F	12948	2.1

1.40 In 1971, the total number of children needing servies like post-natal, medical care, creches, and nutritional care would be 43516. While those needing pre-primary, nursery or kindergarten services will be 21915.[37] As has been discussed earlier the annual infant mortality rate is extremely high. Services to children of this age-group has extraordinary

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35. A study of primary education of Patna Municipal Corporation Bihar State Institute of Education, Patna, 1972

36. Population projections made by the cohort survival test. The estimates for 1971 and actual 1971 population differed only by (-1130)

37. In the research for this paper it was found that the data is acutely deficient in respect to this important age-groups, pre school children (0-5) as well as regarding the non-student youths.

implications in the quality of children reaching [illegible]

1.41 The predominent family pattern is not clear. However, in the contiguous state of Bengal, Kamakrishna Mukherjee in his study of urbanisation and social transformation in the urban and rural area conludes that "the inference is forced on us that the nuclear family organisation is one of the manifestations of the urban way of life is nowhere in the picture."[38] More needs to be known about family pattern in Patna city in order to plan for this age-group. The family size in the city is about 5.57 and is higher in the central zone (5.96)[39] It is expected that there will be variations within the wards.

1.42 The percentage ratio of children in the age-group of 0-4 years to all the women in the reproductive age-group of 15-44 years in Bihar in 1966 was 80.[40] In the city of Patna 11,455 in the fertile age-group (14-59) belonged to the working force in 1961. This figure is bound to increase and not decrease. Therefore, the services to the age-group 0-6 cannot by any criteria be over-emphasised. Further information on the number and location of creches are also needed.

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38. Mukherjee, R.: Urbanism and Urbanisation: Ed. Nels Anderson, E.J. Brill, London, 1964, p. 91

39. If we take a family consisting of a father, mother and children, then it is quite possible that most of the families are of the nuclear type.

40. In 1966, there were 8,70,900 children between the ages of 0-4 years to 10,837,000 women in the ages 15-44 years. This figure could be higher if the infant mortality rate were lower. India - Office of the Registrar General population projects, 1966 (mimeo).

1.43 Patna has very few schools for the pre-school children. The following table for the State of Bihar only highlights the acuteness of the problem (figures for 1967-68)[41]

Total Institutions	Total Teachers		Pupils enrolled		Pupils per teacher
	Total	% females	Total	% females	
44	168	68.8	688	37.3	21

Child Health Programme

1.44 According to the former Secretary of C.S.W.B. "child health programmes may be existing on paper but in substance it is totally absent. Government has appointed a few doctors to check the health of school children but their number is so meagre that probably a child if at all checked does not get the chance more than once in the school life. The primary school children are the worst sufferers in this matter."[42]

Handicapped Child

1.45 The total institutions for the education of the handicapped children in the State of Bihar in 1965-66 was only 12 with a total enrolment of 419 (371 boys and 48 girls)[43]

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41. Report of the Study Group on the Development of the Pre-school child. Ministry of Education and Social Welfare, 1972, pp. 55

42. K.N. Begam; Child Welfare Services in Bihar in Kishore Dal Magazine, 1971. pp.4

43. Ministry of Education, Selected Educational Statistics (Mimeo), 1965-66

1.46 In Patna City there is one school for the blind, and one orthopadic home. The mentally retarted children are sent to Kanki hospital which is for the mentally ill.

Education

1.47 Education if any, for the pre-school is presently being carried on by voluntary efforts. Many of these are reputed to be run on commercial lines. Their quality is questionable and in any case the facility cannot be utilised by low income families.

Social Legislation

1.48 As yet no steps have been taken to prevent vagrancy, delinquency, cruelity to children, and child begging. In 1947 a children's bill was brought into existence and with persistence by vountary organisations was enacted by the Bihar legislature. However, it has still not been implemented. This needs early implementation and a section of the police trained in handling children.

Primary School Education

1.49 The establishment and maintenance of primary and middle school education is an obligatory function of the Patna Municipal Corporation. The following is the break-up of students (boys and girls) from 1st to VII classes.[44]

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44. A Study of Primary Education of Patna Municipal Corporation. Bihar State Institute of Education, Patna, 1972.

1st Class (students admitted)	2660
2nd Class	1952
3rd Class	1706
4th Class	1615
5th Class	1421
6th Class	1298
7th Class	1196

1.50 In this sample of 50 middle schools the average enrolment in each school was 237. There is a significant attrition of students as they go into higher classes. The average number of students in class I is 46 and this goes down to 24 in Class VII. When Class I and II are compared there is a significant drop of students. Whereas the number of students in Class I is 2660 in Class II this drops to 1952. Thus 25.0 per cent of students enrolled in Class I do not go to Class II. And 7th Class students form only 45.0 per cent of students admitted in class I. The Corporation schools have poor retention capacity.

1.51 The study further reports, "In the middle sections of middle schools the average number of students is 48. According to the All India Educational Survey the average number of students in the middle section of middle schools for Bihar State works out to 57. The Corporation schools lag behind the State average."[45] It is apparent that due to many reasons the students drop out. That they join private schools is highly unlikely because many come from homes whose parents income are very low, as the following table indicates.[46]

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45. & 46. A Study of Primary Education of Patna Municipal Corporation, Bihar State Inst. of Education, Patna, 1972

Student Population According to Parents Income (Monthly)

Income in Rs.	Percentage of Students
50-100	47.1
101-250	37.0
251-500	11.2
501-750	3.2
751-1000	1.2
1001 and above	0.3

1.52 Conjointly, the drop out rate the results of the Bihar School Examination conducted in the 7th class in addition also reflect the quality of teaching.

Year	Number of students	Passed 1st Div.	2nd Div.	3rd Div.	Pass	Total
1966	992	50	188	273	135	646 (65.1%)
1967	1312	74	278	561	237	1150 (88.4%)
1968	1462	99	299	424	169	811 (55.4%)

1.53 The stagnation rates in the Patna Municipal schools are staggeringly high as the following table illustrates -

	More than 2 years (in the same class)	More than 3 years (in the same class)
Class I	33.12	20.95
Class II	25.98	20.00
Class III	24.87	24.00
Class IV	35.4	29.09
Class V	29.09	-

The Sex Ratio

1.54 The ratio of boys to girls in schools is low. In the middle school where girls lag in both enrolment and follow-up, the ratio of girls to boys is 2:3. For example, in the sample of middle schools surveyed the total number of boys were 7127 and girls 4621.[47] Interestingly, the sex ratio in lower & upper primary is about the same, but it is in the upper classes that the differences begin to widen.

Teachers

1.55 As regards teachers in middle schools, the survey conducted by the Bihar State Institute of Education, notes that "if the qualititative aspects of the teachers is taken into consideration, it is not bad."[48] Because out of 409 teachers 338 are trained, that makes 82.6 per cent. Out of 409 teachers 10 have their M.A. degrees, 46 their B.A., 121 I.A. degree, 146 teachers are matriculates and 51 teachers have passed their middle schools. As far as seience teachers are concerned there is a deficiency. Those teaching science are generally matriculates with science subjects. These consist of only 29 trained and 6 untrained teachers. If there is to be one science teacher to one school, then obviously more are required. All the Corporation teachers are paid according to the Kothari Commission recommendations. The teacher-pupil ratio is 1:29 and is low.

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47. & 48. A study of primary education of Patna Municipal Corporation, Bihar State Institute of Education, Patna, 1972

School Buildings and Equipment

1.56 Most of the Corporation schools are in extremely poor condition and are inadequate. Only about 50 per cent schools have their own building. Most of the schools have inadequate space and conduct classes in corridors and varendas. The furniture in these schools are inadequate and most do not even have storage space.

1.57 Teaching aids are another deficiency. There are no charts and maps in 28 primary schools. The corporation does not make any provision for science teaching and only some middle schools have been provided with science kits by the State Education Department.

Crafts

1.58 Of the fifty schools only three had some crafts being taught.

Library

1.59 Out of the fifty middle schools, 38 schools had books ranging from 500 books to 50, but library usage was poor. In 1969-70 in 17 schools no books were borrowed and only in twenty one schools some books were borrowed.

Latrines, Urinals and Drinking Water Facility

1.60 Of the 50 schools, only 27 have latrines. Of this 23 are of the service type and four are septic latrines. Twenty three schools have no latrine or urinals at all.

Only 18 schools have drinking water taps.

Attendance Officers

1.61 At present there are seven attendance officers who are to assist in encouraging children to come to schools. Briefly the following recommendations are suggested by the Bihar State Institute of Education.[52]

i) It appears the present structure of school supervision and organisation needs revision. A Corporation Board for the Patna Municipal Corporation schools with the Mayor as Chairman may be considered and schools be administered by the District Education Officer.

ii) There are 33,611 girls and boys in the Corporation schools and 1,208 teachers. Thus if one teacher was appointed for every 30 students, it would be 1,121 teachers. It appears that with 87 surplus teachers (1208-1121 = 87) there is room for expansion of educational facilities for 71,000 of the children in the city. (At present only 32.00 per cent of the children of the city are being covered).

iii) Encourage children from low income families to attend schools. Avenues for such incentives must be explored.

iv) There is need for building at least ten schools buildings each year.

v) At least 15 selected middle schools to begin with, should be equipped for science teaching.

vi) Middle school science teachers should at least have I.sc. or Degree-I in Science. In lower and upper primary schools, the science teachers should at least be matriculates with science. Out of the 1,208 teachers, only 50 teachers have science education at the matric stage, three teachers have I.Sc. or B.Sc degrees. In Patna Municipal Corporation there are 155 schools. Hence at least 100 schools have no science teachers.

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52. Recommendations made by the Bihar State Institute of Education.

vii) General rebuilding and improvement of the school environment is greatly needed.

viii) Meeting between parents and teachers need considerable emphasis.

High Schools

1.62 Patna City has 19 higher secondary schools for boys and 24 high schools (15 for boys and 9 for girls). Two senior basic schools (1 for boys and 1 for girls) are also there. Besides these, there are a number of private schools whose academic standards vary greatly.

Vocational Training and Employment

1.63 At present vocational facilities in the city are very inadequate and there are only two institutions run by the Government are in existence. Beaides these, two other institutions are run by Christian religious organisations, one for boys at Loyola Industrial School at Kurji and the other for girls at Mt. Cormel Technical Institute. These two institutions face a heavy demand for their training, thus emphasising its recognition by young people.

Voluntary Organisation

1.64 A number of voluntary organisations in the field of child welfare, education, custodial care and training exist in the city. A brief out line and their activities are enclosed in Appendix-II.

Administrative Structure

1.65 Services for children are carried out by a number of administrative authorities in Patna including the Government Departments, Patna Municipal Corporation and the Patna Improvement Trust.

1.66 The bulk of the activities related to higher education and medical services are State responsibilities. A brief account of Patna Municipal Corporation and Patna Improvement Trust are given below.

Patna Municipal Corporation

1.67 Municipal Government in Patna dates back to 1884. The various parts of Patna were governed under Bihar and Orissa Municipal Act till May 24, 1952 when the President gave his assent to the Patna Municipal Corporation Act which consolidated the municipal affairs of the town and suburbs of Patna. The first election of the Corporation was held in 1954. It has Mayor, Deputy Mayor, a Standing Committee and four Consultative Committees, one each for Education, Medical, Public Health and Veterinary, Public Works and Market and Garden. The Chief Executive Officer appointed by the State Government was its executive head. The Corporation was superceded by the Government w.e.f. 1968 and the Chief Executive became the Administrator. Accountability and peoples' participation have been absent. The Corporation bears no direct link with the people.

1.68. At present the Corporation covers an area of about 57.83 kms. and it has a population of 473,001. The Corporation is grouped in three circles for administrative purposes, viz., Patna City, Bankipur and the New capital. In 1967 the total number of people employed by the Corporation was 4,000.

Sources of Revenue

1.69 The total number of people who paid municipal taxes was 1,20,000 (out of a total population of 4,13,001). This amounts to 25.3 per cent. The net demand during 1967-68 was Rs. 71,27,700 including arrears of Rs. 30,14,400 and current Rs. 41,13,300. The net collection was Rs. 23,63,102 including arrear of Rs. 6,95,783 and current Rs. 16,67,319.[53] The other sources of revenue of the Corporation are (i) settlement roadside space to hawkers; (ii) tolls on vehicles, carts, etc.; (iii) registration fees on vehicles and dogs; and (iv) professional tax. The following is the financial break-up of income and expenditure (actuals) of the Patna Municipal Corporation in 1970-71.[53]

Income

I.	a) Opening Balance	22,63,621.00
	b) Tax Revenue licence and fees etc.	2,73,405.00
	c) Miscellaneous Income	2,76,090.00
	d) Feesetc.	2,37,546.00
II.	a) Grants	58,29,892.00
	b) other items	19,465.00
III.	Loans and Advances	56,55,653.00
	Total (excluding opening balance)	1,70,81,279.00

53. Sachchidananda: Town Planning Director Services, Patna, A.N.S. Institute of Social Studies, Patna, p. 36 1972

Expenditure[53]

I.	a) General administration Collection etc.	16,36,863.00
	b) Public Safety	4,97,303.00
II.	a) Communicable diseases	59,256.00
	b) Vaccination	33,232.00
	c) Public Health Office Staff	98,326.00
	d) Sewerage	1,11,586.00
	e) Water Supply	15,68,000.00
	f) Public Latrines and Urinals	35,50,010.00
III.	Miscellaneous	4,20,251.00
IV.	Medical	34,251.00
V.	Public Conveniences	6,04,442.00
VI.	Education	24,73,533.00
VII.	Miscellaneous	7,88,009.00
VIII.	Loans and Extraordinary expenditure	2,74,347.00
	Total Expenditure:	1,71,88,807.00

The net income works out to the following:

Grand Total	1,70,81,279.00
Loans and Advances	58,55,853.00
Net Income:	1,12,25,426.00
Grants	56,29,882.00
Without Grants	55,95,544.00

However, the Corporation is not fully exploiting its share of taxes and its financial position need considerable strengthening.

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53. Budget Statement, Patna Municipal Corporation, 1972-73 (mimeo)

Patna Improvement Trust

1.70 The Patna Improvement Trust was established in 1952 with a view to ameliorate the civic facilities of Patna City. The Trust took up the preparation of Master Plan in 1956 with a twenty year perspective. The Trust has after comprehensive surveys of the problems and conditions now prevailing in the urban areas of Patna published a Master Plan for the city.[54]

1.71 The Trust has developed two residential areas and constructed a net-work of new roads; all in these developed areas. Some of the slums mostly near the Railway Station. The Trust has prepared slum improvement schemes in Mithapur, Jakkanpur, Mandi Salimpur Area, Lohanipur, Sabzibagh, Mussalapur, Lagar and Nawabe areas which are some of the worst slums of the town.

1.72 Some drainage and sewerage improvement have been executed by Patna Improvement Trust. Among others, the main outfalls viz., Kadam Kuan and Balongung Nala have been improved and a pumping plant on the Bakarganj nala at Antaghat have also been installed. Of further interest to the project is that an underground storm sewer covering a total length of 1,65,000 feet have been laid in the central zones as well as in the new residential areas. A scheme for laying out soil sewers throughout the city has been prepared and taken up for execution.

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54. Master Plan for Patna, Patna Improvement Trust, Patna, 1962. Vol. I and II.

1.73 Among the anticipated schemes, presently submitted to the Government, a greater emphasis appears to be on the development of a swimming pool at Shrikrishna Puri (recently developed middle class residential area) a garden east of Rajendra-Nagar (another recently developed middle class area) construction of a hospital for middle class clients at the existing Bankipur Dak Bungalow and a milk colony beyond Agamksa.[55] All of these are not in the project area.

1.74 The statistical information is derived from various sources, and it is neither comprehensive nor do they belong to the same time period. However, they reflect the limitations of resources at our disposal. Perhaps they help to identify significant gaps.

1.75 Despite these limitations certain broad inferences may be drawn which are relevant to the project. These briefly are:

i) The central zone of Patna City where the project area is to be located has both the highest density and least space.

ii) The male-female ratio is in favour of males, possible by indicating the urban nature of the area.

iii) There is a high child dependency ratio.

iv) The age-group 0-14 population is high and has been rising.

v) Elementary sanitary facilities are either non-existent or lacking. Most parts of the central zones are most deficient.

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55. Master Plan for Patna, Patna Improvement Trust, Patna, 1962, Vol. I I/3.

vi) Housing and other environment constraints particularly in the central zone are severe. Most houses of the central zone are either obsolescent or kutcha.

vii) Possibly, expectation of life is low, and infant, and neo-natal mortality is high. Children constitute a large percentage of the annual death rate.

viii) Women form a very small percentage of the work force. However, a greater percentage of young girls are employed than young boys.

ix) The per capitaincome is possibly very low and needs further assessment, in order to plan for each area.

x) Only 32.0% of the children of the city are in schools. Due to various reasons, the stagnation and wastage rates are very high, despite the fact that the percentage of trained teachers, pupil teacher ratio and per capita expenditure are all good.

xi) Municipal schools buildings in general, are deficient in serving minimal needs of education. There is a significant dearth of teaching aids and science equipment.

xii) Girls form only a small percentage in middle schools.

xiii) No data is available regarding the handicapped children.

xiv) Present structural arrangement of the Patna Municipal Corporation has no direct relationship or link with the people. Peoples' participation is minimal.

Section - II

SELECTION OF THE PROJECT AREA AND ITS PROFILE

2.01 The first meeting of the Secretary, Deputy Secretary, Administrator, Patna Municipal Corporation, Deputy Administrator, Town Planner, and Joint Director (CMA) took place on 27th April, 1971, following D.O. Letter No. 7588/LSG of 24.10.1970 from the Secretary to the Government of Bihar, giving approval of the State Government for the selection of Patna for working out a plan for Integrated Services. The Administrator of the Patna Municipal Corporation "referred to the tight financial position of the corporation and he did not think that the Corporation will be able to make any financial contribution".[1]

2.02 The Meeting decided to "draw up a modest plan for strengthening and supplementing services in a selected area of about 50,000 population in the city. The proposals will then be considered by the Corporation, the State Government and Government of India. The Department of Social Welfare will be approaching the Planning Commission for allocation of additional funds for the purpose. It was, however, emphasised that the plan had to be modest and should be repeatable."[2] Further in a Consultancy Meeting held on December 3-4, 1971 on Urban Family and Child Health Centres the two salient factors stressed by Mr. P.P.I. Vaidyanathan, Additional Secretary, Government of

1. Minutes of the meeting held on 27th April, 1971 to discuss arrangements for survey and studies and preparation of a plan of integrated services for children and youth in the city of Patna held in the office of the Secretary to the Government of Bihar, Local Self-Government Department, page 2
2. Ibid. p.2

India, Department ofSocial Welfare were (i) the financial implications of the proposals, and (b) the feasibility of multiplying the programme in other areas of the city. He said that "while dealing with the financial aspects of the programme the cost has got to be reasonably low and yet the services had to be more effective than before, and had to bring in optimum returns for invested resources."[3]

Administrative Wards

2.03 As described earlier the urban limits of Patna City is spread over 37 municipal wards. The central zone where the selected wards are located (1 to 16) is the most congested area. The central zone has 27.06 per cent of the area and 48.82 per cent of the population. Here over-crowding is maximum . . . This and other factors already stated bear out the rationale of selecting some wards for the project in the central zone.

2.04 In order to select the area a meeting convened at the A.N. Sinha Institute of Social Studies in July, 1971 was attended by the representatives of the various departments of the Patna Municipal Corporation, Office of Town Planning, A.N. Sinha Institute. In the meeting it was decided that the selection of the area should reflect the urban conditions. The

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3. He further stated "that the total investment in a particular area should not be more than twice as was available currently or was likely to be available normally". Resume of the Consultancy Meeting on Urban Family and Child Welfare Centres on December 3-4, 1971, page 2

three zones were then examined and the central zone seemed most eligible because it had all the negative statistics on the basis of:

i) High density
ii) Bad sanitary and drainage facilities
iii) A high growth rate
iv) A lower ratio of women to men particularly productive age-group
v) A high percentage of obsolete houses and a larger number of persons per residential household
vi) A high percentage of child population and family size
vii) Narrow lanes
viii) Possibly a high infant mortality rate and neo-natal death
ix) Deficient schooling patterns
x) A higher percentage of non-workers.

2.05 The Central Zone further fitted in with the criteria evolved for all of the projects in other cities which were:[4]

i) As far as possible the selected wards should be geographically contiguous and may not cut across municipal administrative divisions.

ii) Predominantly be inhabited by people of lower middle and lower income groups.

iii) Have a population of about 50,000

iv) Have some social infrastructure and institution to develop integrated patterns.

v) Have potentials for development and a commitment on the part of the various levels of the Government, State Local Self-Government, Municipal and other agencies if any, for development of services in that area.

vi) To evolve a workable pattern for adoption on a large scale in the other deprived areas of Patna City.

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4. Project of Integrated Services for Children and Youth in Urban Areas - Scheme of City Surveys and Plan Preparation- p.7 IIPA (mimeo)

The Wards finally selected were:

Ward 3 - Chirayatarn
Ward 5 - Bakargunj
Ward 7 - Kadam Kuan (particularly Salimpur Ahra)
Ward 8 -- Sabzibagh
Ward 11 - Lohanipur

2.06 The accompanying table gives a brief description of the Wards:

Electoral Wards	Blocks*	Net area (acres)	Net density (per acre)	Population	As % of total population of the Project Area
Ward 3 - Chirayatarn	26	271.1	69	18,665	25.4
Ward 5 - Bakarganj	11	95.6	89	8,465	11.5
Ward 7 - Kadamkuan Salimpur	19	120.5	97	11,691	16.0
Ward 8 - Sabzibagh	21	50.0	339	16,931	23.1
Ward 11 - Lohanipur	23	104.5	91	17,634	24.0
All 5 Wards combined	100			73,386	100.0

2.07 The total population of all the 5 Wards combined in about 15.5% of the total population of Patna City. Sabzibagh has the highest density per acre among all the five wards.

2.08 Ward 3 is geographically and administratively separated from the rest by its northern boundary of the Patna Gaya Railway line. Administratively it belongs to the New City Circle which is different from that of the other four wards. Some parts of this ward such as Kankarbagh on its eastern boundary consists of middle class residents whose demand on services may

* According to the Census Bureau each block consists of approximately 120 houses.

only be minimal. Containing 25.4 per cent of the total population of the project area, the ward has approximately 42.3 per cent of the combined area of the wards.

2.09 Ward 5 - Although newly developed this ward in area is quite unplanned. Ward 5 covers 14.8% of the combined area of the project and about 11.5 of the total project population. Ward 5 has a population composition most of whom have very low income. It has poor sanitary facilities with both underground and open drainage facilities.

2.10 Ward 7 occupies 18.6 per cent of the total area of the project and has 16.0 per cent of the total project population. Parts of Ward 7 has middle class residential area of Kadamkuan but parts of it have such areas as Salimpur Area where most municipal sweepers and harijans live. It is also through this area that a slow moving open drain runs.

2.11 Ward 8 thickly packed and populated Ward 8 occupies 8.0 per cent of the total area of the project area, the area has 23.1 per cent of the project population living in it. This is a homogenous and cohesive community being predominantly Muslim and most of the gainfully employed are petty shop-keepers who are also home owners.

2.12 Ward 11 contains 16.3 of the total project area and has about 24.0 per cent of the project population. Parts of this ward such as Kadamkuan is planned, but a greater part of the Ward such as Lhhanipur are high density area. Partly, rural, this area has been brought into the urban complex only recently.

Demographic Features

2.13 The total population of all the five wards in the Project Area is 73,386 out of which the child population is 32,253.

2.14 The attached table on page 46 gives the demographic picture of different wards.

2.15 The ratio of female population to 1000 females is low at least in Wards 5,7, 8 and 11[5] Low female population is characteristic of urban population of an unsettled character. It is probable that many of the male population are migrant labourers. How many of them are floating migrants and how many are permanently settled is not known. The percentage of literate and educated persons are rather high. Women constitute 1/3rd to half of the literate and educated of the total women population.[6] This is something that needs to be assessed further. However, if these rates are to be accepted then there is considerable scope for community education through the written media.

2.16 Employment patterns are not urban. In other words, Patna City does not have any significant industrial plants, a majority of the workers are engaged in tertiory occupations, so common in most urban parts of India. These services include

5. In 1961 the sex ratio for Bihar State was 876, and for all India 941 per thousand males. Statistical profile of children and Youth in India. Background paper prepared for the Working Group of Experts on Statistical Aspects Concerning Children and Youth, 1967, UNICEF 1967 Table 7 (mimeo)
6. Literacy rates for Bihar in 1961 was 18.2% (male 29.8% and females 6.9%)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
No. 3	830	11.6	52.3	24.9	3.9	14.9	43.9	3.6	6.5	25.4	37.5	6.8	1.11
No. 5	683	12.3	55.4	33.9	6.4	17.8	39.7	4.0	5.6	11.5	47.6	6.3	1.3
No. 7	767	12.1	62.0	27.7	6.2	25.1	44.8	4.9	7.7	16.0	50.3	5.6	1.05
No. 8	790	12.5	60.0	25.4	4.7	17.0	48.6	2.3	4.0	23.1	46.5	5.3	1.27
No. 11	739	4.8	59.5	26.5	12.2	24.1	37.4	1.6	2.5	24.0	46.2	5.5	1.16

1 = Wards
2 = Sex Ratio
3 = Percentage of Scheduled Castes and tribes total population
4 = Literacy and educated persons total population
5 = Total workers to total population (Patna City)
6 = Percentage of persons in manufacturing, industries, other than household to the total workers population
7 = Percentage of persons in Trade and Commerce to the workers population
8 = Percentage of persons in service to the total workers' population
9 = Percentage of female workers to the total female population
10 = Percentage of female workers to total working population
11 = Percentage of population of wards to total population
12 = Percentage of female population lit. and educated for women
13 = Average Households
14 = Number of households per house

domestic servants, porters, hotel and shopkeepers etc. Thus with the exception of Ward 11, where about 12.2 are engaged in manufacturing, in other wards manufacturing holds a small percentage of workers. Again Ward 7 and 11 records a higher percentage of those engaged in trade and commerce, followed by Wards 5 and 8. The economic level of these endeavours is not clear but considering that only about 1/4th of the total population has any meaningful occupations (with the exception of Ward 5 where the occupation level is somewhat higher), the total income per household may not be significant. In any case they need further assessment.

2.17 One feature that is of relevance to services to children is that women constitute a very small percentage of the work force. The range is as low as 1.6 per cent in Ward 11 to 4.9% in Ward 7. The question whether, any supplemental occupation to augment incomes for these families are needed or not need assessment.

Residential Patterns

2.18 That there is shortage of houses in these wards is evident. The number of households per house is more than one. It is 1.3 in Ward 5 and 1.27 in Ward 8. For all the wards combined there is a shortage of 1529 houses. The following table indicates the gross housing shortage in each of the Wards in 1971.[7]

Ward 3	285
Ward 5	153
Ward 7	112
Ward 8	693
Ward 11	286

Average Household Size

2.19 The average household size for all the Wards combined is 5.9 but a closer examination of each of the wards suggests that household size are large in Ward 3 and 5 and smaller in Ward 8 and 11.

Ward 3	Household Size
Ward 3	6.8
Ward 5	6.3
Ward 7	5.6
Ward 8	5.3
Ward 11	5.5

2.20 Further data on the number and size of family of each ward may indicate whether the family is nuclear or joint family. But these preliminary figures suggest that possible with the exception of ward 3 and 5 the nuclear family with some relations newly arrived into the city may be a more predominant family type.

Projected Age and Sex Composition of Children in the Project Area

2.21 The child population in the combined wards of the project area is approximately 44.1% of the total population of the area and the projected figures remain about the same in

1961. Thus the total number of children in each age-group in 1971 and 1981 are as follows:

	1971		As percentage of total population		1981		As percentage of total population	
0-3	M 3523 F 3229	6752	M 4.8 F 4.4	9.2	M 4396 F 4013	8409	M4.6 F 4.2	8.8
4-5	M 1835 F 1541	3376	M 2.5 F 2.1	4.6	M 2293 F 2006	4299	M 2.4 F 2.1	4.5
6-11	M 5724 F 4476	10190	M 7.8 F 6.1	13.9	M 6116 F 5829	13474	M 7.7 F 6.4	14.1
12-16	M 5284 F 3887	9173	M 7.2 F 5.3	12.5	M 5829 F 4587	10416	M 6.1 F 4.8	10.9
17-19	M 1688 F 1174	2862	M 2.3 F 1.6	3.9	M 3249 F 2293	5542	M 3.4 F 2.4	5.8
0-19		32353		44.1		42140		44.1

Based on this data the following points emerge:

1. The pre-school age children constitute a very large group between the ages 0-3 and 4-5. There are 10,128 in 1971 and 12,708 in 1981

   Thus between the year 1971 and 1981 the project may have to give priority to the pre-school and primary school child, possible sequential expansion may have to be considered beginning with pre-primary and then in primary later to secondary school children. It is felt that moving up with the present primary school children and pre-school children in providing integrated services would give the advantages of experience in working with this group and also of maximising outputs.

2. The largest number of children in absolute terms are and will be in the age-group 6-11.

2.22 Male Female differentials is also evident from accompanying table. In the higher age-group 12-16 and 17-19 male children account for more than female children (see table I Appendix I for ward-wise distribution). This is also true for population projections in 1981. Since population pattern have a strong impact on programme planning this needs further clarification and assessment.

Section - III

PROJECT PROPOSALS

Introduction

3.01 Due to various reasons the development of Patna City is chaotic, its spatial pattern is lop-sided and despite recent efforts which have not been insignificant, the city shows deficiencies in many areas and services. Environmental aspects, education, recreation, medical and health and vocational needs are severe. Besides even the most recent planning appears to have by-passed the high density slums and poorer sections.[1]

3.02 As new organisations come into existence, it must define its goal and operating procedures. The words coordination and integration apply to a wide variety of proposals for changing the authority structure, communication channels and synchronization of programme and purposes. These proposals may run from major structural reforms in which previously separate units of government and organisation learn to synchronize their activities to relatively minor exchange of information.

3.03 Therefore, priority and contents of programmes in Patna City are to be predicated on the need for optimisation of services to children. They may be viewed and planned within the following framework:

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1. Master Plan for Patna, Patna Improvement Trust, Vol. I, pp. 1/3, 1962

i) Objections sought and results anticipated over a given period of time.

ii) Target population (type of clientale) geographical coverage

iii) Methods used for achieving objectives

iv) Personnel required (type, number and functions)

v) Material resources

vi) Financial requirements

vii) Law of operation

viii) Time table for implementing programme

3.04 The Advisory Committee on Integrated Services for Children and Youth in the Urban Areas on 5th July, 1971 has already arrived at broad based conclusions on the priority on the content of the programme. Within these limits Phase I or the (hard core) aspects of the project are to be:[2]

i) Cent per cent coverage of maternity and health services for children between 0 to 5 years.

ii) Day care services for children between 0 to 5 years

iii) Cent per cent coverage of primary education for children between 6 to 11 years.

iv) Nutrition to children below 0-6 years and expectant mothers and programme of nutrition for the pre-school age children of the Department of Social Welfare, Government of India.

It should be noted that all but one of priorities spelled out for development in Phase-I related to the age-group of 0-6 years. The age-group of 0-3 and 4-6 years are most critical.

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2. Minutes of the Meeting of the Advisory Committee on Integrated Services for Children and Youth in Urban Areas held on 5th July, 1971 in the Department of Social Welfare, pp. 4

3.05 The main report of the Mina Swaminathan Committee stresses that "it is in the first six years of life that the child is most "vulnerable", while emphasising that the quality of an individual depends upon what happens at this stage. It adds, "Medical evidence has shown that if health and nutrition are neglected in the first few years of life the learning capacity of the child is likely to be impaired even when its conventional intelligence is within normal range. And yet rarely does the child receive either the kind or the amount of attention that is required. Such neglect can have an effect which lasts throughout life and cannot always be removed by subsequent remedial measures."[3] Essentially then this is a crucial stage which needs attention if all the inputs at the primary and secondary school levels were to be maximised. On the other hand, if this stage is bypassed, subsequent efforts in education and health can only have a residual value.

3.06 A quick look at some demographic data/inputs the problem in its true perspective. The simple truth is that in the project area out of a total of 32,363 children 10,128 children in 1971 or roughly 1/3rd of the total child population is below 6 years of age. Similarly, according to demographic projections for 1981 out of 42,140 children in the project area 12,688 children also belong to this age-group. Here too roughly, it works out to about one-third of the child population in 1981. Of course,

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3. Report of the Study Group on the Development of Pre-school Child, Ministry of Education and Social Welfare, 1972, pp. 4

this does not give a qualitative picture of how many infants really do survive at the time of birth and subsequently the probability of the survival is only slightly above the chance level of 0-5-years.[4] Deaths in Bihar State in the age-group 0-19 as per cent of total death was 45.0 in 1962. The deaths under 1 year was 17.0 and 1-6 years 16.4.[5] Thus deaths in age-group 0-6 in 1962 for Bihar State was 33.5 per cent of all deaths.[6] It should be positively higher in deprived areas. We know of those who survive, approximately 2/3rd suffer from some form of nutritional deficiencies. As discussed earlier for the whole of India it was found that the children below the age of 5 years constitute a major vulnerable section of the population. Data regarding infants is lacking for the project area but probably a high percentage of deaths in the project area occur in this age-group. This is something that needs further assessment. In the recent past, there has been a steady decline in the infant mortality in India but there appears to be very little change in the pre-school mortality rate. Severe protein calorie mal-nutrition is one of the major causes of death of all these children.

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4. A.Chatterjee, Ministry of Health, Health Statistics of India (1961 and 1962)

5. A Statistical profile of Children and Youth in India - background paper prepared for the working group of Experts on statistical aspects concerning children and Youth, UNICEF, June 1, 1967, Table 17.

6. Ibid. weighted figures.

3.07 That this group is neglected is further substantiated by the fact that 65 per cent of incidents of severe or mild calories of nutrition are encountered in children who are of a birther-order of 4 or above.

3.08 Mortality rates for children also tend to increase with the family size.[7] A recent survey covering 80,000 children in different parts of the country showed a very high incident of nutrition disorder.[8] It is, of course, obvious that for any level of family income particularly among the low-income group the larger the family the poorer the nutrition status of the children and the other family members.

3.09 Birth interval also affects the children mortality, morbidity and the physical growth and intelligence. Both natal and infant mortality rates are higher for the infants born at the shorter interval and possibly also increase illness amongst closely spaced children. Birth interval has a serious affect on the intelligence of children. The relative absence of satisfactory performance in later educational life and generally lower measured ability of intelligence of children is not, therefore, difficult to explain. Hence, the need for integration of health and education at an earlier stage takes an added importance in achieving economies.

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7. Family Size and Family Welfare", Economic and Political Weekly," Vol, VII, No. 43, October 21, 1972, pp.2155

8. Ibid. page 2157

3.10 The child is very much environment responsive. Inadequate water facilities, sanitary arrangements, housing, income levels, birth order, family size, nutritional levels all have pernacious effect on the quality and quantity of a child's life. While death is an extreme end of the morbid process, it is the morbidity itself that is most telling on the quality of the child's performance at later age-levels. Serious lacks at critical periods may result in irreversible deficiency. There is extensive evidence from recent research of the effect of mal-nutrition and under-nutrition on the mental growth and development of children. Protein mal-nutrition during earlier pregnancy of the mother and during earlier infancy periods of the child is found to be corelated with the lower brain cell development. As the Director-General of Health Services has so aptly summed it up "Mal-nutrition and under-nutrition create suitable conditions for spread of communicable diseases behavioural disorders, and physical disability ultimately leading to a crippled generation."[9]

3.11 Any qualitative improvement of integration of services for older age-group involves in dealing sufficiently with earlier age-group. Problems at a later age tend in general to be symptomatic of the problem of earlier life stages of the child. In Patna although nutrition supplements are being planned as also other health services, yet these are planned to operate

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9. National Health Programmes Perspective Plan, Part-I, DGHS, pp. 34, 1972.

without any institutional base. It is important to create an institutional base within the community so that the participation of the people is assured.

3.12 Periods of high sensitivity to events of a pre-school child are critical. Growth deficits that have occured over a long period of time are irreversible. Timing and type of services are very much related to the impact it has on the child.

3.13 There are more cogent reasons for the selection of the two age-groups (0-3 years and 4-5 years) and these are (i) it is important to reduce mortality; (ii) it is important to promote optimum nutrition standards during the formative years of the child life to enable the child to realise his full potential when he starts growing; (iii) it is important to build readiness in the child for school learning and in order to combat wastage and stagnation in the first two years of primary schools; (iv) to protect a child from social and mental hazards; (v) to enhance community awareness to the needs of the child gradually and to build community environment and participation in the programme. It takes time and close contacts with the community to bring about this.

3.14 The enormousness and critical nature of the problem selects the pattern of services. The problem is urgent as it is compelling specially in relation to the deprived sections of our population who are subjected to greatest stress and strain. Nutritional education is of limited value to a mother, when the wage level is either low or non-extent. And yet the problem

is so vast that considerable experimentation is needed to discover feasible pattern of services. Thus in developing services the two major concepts that are important are -

i) Manageable inputs; and

ii) the neighbourhood concept.

3.15 A series of models need to be tried out, keeping in mind the health and physical care of the child as the very minimum of services. Subsequent evaluation of these patterns may provide valuable clues to integration and optimization.

3.16 A rational approach in view of our chronic limitations of resources is to emphasise services to pre-school children. Emphasising services to the base age-group of 0-3 and 4-5 years and spreading the services chronologically in a series of phases has a number of advantages. Building and phasing integrated services initiated with the basic age-group sets in a multiplier process that includes the parents, the services personnel, the community and the school. In addition, it achieves economics and avoids the disadvantages of a watered down diffused approach. In addition it has other advantages:

i) programme quality can be enhanced and tested;

ii) Integration is feasible because of the emphasis on primary age-group;

iii) Needs may be anticipated with greater reliability and planning can be on a more valid basis.

iv) Total frames can be built step by step and feed backs and corrective measures can be more reliable.

v) Effective, adequate and appropriate controls can be exercised over each of the programme and inter-linkages can be identified.

3.17 In an analysis of the reports of the study teams on the programme of integrated child care services, the Planning Commission has recommended that "the minimum package of services to be provided for pre-school children would include special nutrition feeding, immunization, health care including referral services, nutrition education of mothers, pre-school education and recreation, family planning and provision of safe drinking water."[10]

Health

3.18 The minimum health needs of children can be viewed under the following heads:

a) Organisation of preventive and curative services

b) Care of mothers and children

c) Control of Communicable diseases

d) Nutrition

e) Health Education

f) Health statistics

Existing Services

3.19 The poor environmental factors and the limited nature of medical and health services in Patna city has already been noted. The project area with its very high density, congestion and insanitary conditions provides an environment that is most hazardous to the health of all the people but most..

10. Programme of Integrated Child Care services (analysis of Reports of Study Teams) Government of India, Planning Commission, 1972, p. 2

of all the children who are vulnerable. The project area itself has only two hospitals one Unani and one Ayurvedic. But Patna Medical College with its affiliate hospitals being close by has many advantages.[11]

3.20 The Bihar Maternity and Child Welfare Society runs three MCH centres of which one is the Lady Syphton Welfare Centre . This is located in Sabzibagh (Ward 8) and is the only centre related to the specific needs of women and children. The Governor is the Chairman of the Managing Committee , and Mr. Nagendranath Jha, Ex-Health Minister of Bihar State is the Chairman of the Executive Committee. Dr. Mukhapadyaya, Director, Medical Services is the Hon. Secretary. The Society has an annual budget of Rs. 1,68,000 which comes from interest from investments. At present the staff of Lady Syphton Centre consists of the following:

ANM	2
LHV	1
Darwan	1
Peon	1
Rickshaw Puller	1
Night Watchman	1

The Municipal Corporation has no special arrangement for BCA programme but the programme is being carried out by Swastha Bhavan.

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11. The Obs-Gya wing of the Patna Medical College has 130 beds facility and an average of 4,000 deliveries were conducted last year. The Rajendranagar Hospital too has a wing for delivery.

3.21 A programme of triple antigen vaccination has been initiated by the Director of Health services. The small pox vaccinations are carried out by the Corporation staff of 13 vaccinators. During 1969-70 about 26,590 primary vaccinations and 1,33,450 re-vaccinations were recorded for the whole city. Similarly, for the same period about 96,450 inoculations against cholera have been recorded.

3.22 Preventive measures against polio, tetanus and rabbi toxin and diphtheria are yet to be initiated. One gets the impression that the health awareness on the part of the people has been only in the curative sense as has been the approach of health service. All these need considerable understanding and assessment. Also the concept of the relationship of medical resources to the population density needs closer evaluation and scrutiny if quality of services is to be improved.

3.23 Environmental and community hygiene being the one major deficiency of serious proportions, immediate attention and remedy is needed in this area. Improvement of the drainage system and laterine, safe drinking water, inspection of foods and garbage removal are some of the urgent needs in Patna City. An emphasis on this is bound to cut costs of curative health services.

Proposals

3.24 Broadly, the pattern of services both in Health and Education and Community services incorporates three general concepts.

i) Manageable inputs so that both manpower and finalised economies can be achieved.
ii) Decentralised services
iii) Integration of all the three areas - Health, Education and by organisation at the neighbourhood level.

MCW and Urban Family Planning Centre

3.25 At the apex there will be two maternity and child welfare and urban family centres. These centres by themselves, will tend to centralise the services. It is, therefore, necessary to spread and decentralise the services. At the neighbourhood level, there will be the sub-centres or Bal Kendras which will be linked to the two MCW and Urban Family Planning Centres.

3.26 The Lady Syphton Centre has excellent potentials of incorporating preventive and curative aspects of pediatrics medicine and with the Balwadi centres combines the broader definition of promoting welfare. The building under renovation is to incorporate both the MCW and family planning function.

The other MCW and Family Planning Centre is to be located in the Tibbia College.

3.27 The State Health Department's proposals originally envisaged two health centres in the following places:

1. North of the main railway
2. South of the railway line

3.28 The Khas Mahal area in Chiraya Tarn (Ward 3) is divided from the project area by a railway line and has no hospital, no adequate water and sanitation facilities. Further the population here has a rural orientation. However, locating a Centre here at present does not seem possible since adequate accommodation for locating the MCW Centre is not available. This deficiency will be made up by having more sub-centres and Balkendras.

3.29 Therefore, of the two MCW urban family planning centres one is to be located in the Tibbia College premesis (Ward 5) and the other in Lady Syphton Centre (Ward 8). The Lady Syphton Centre presently undergoing extensive structural alterations, is expected to play a major role as a community welfare centre both for training and for service. It is expected to have a Balwadi training centre in the building next to it. The following services are to be offered in both the Centres:[12]

i) Maternity and child welfare centres would include ante-natal, home delivery, domicilliary services, post-natal and follow-up services.

ii) Family planning services to be given in the shape of distribution of conventional contraceptives registering cases for vasectomy or IUCD insertions and organising vasectomy/IUCD operation services.

iii) Health check-up of children below 14 years and correction of defects.

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12. Note prepared by the State Department of Health, for MCW and Urban Family Planning Clinic.

iv) a) Immunisation of infants and pre-school children against cholera, typhoid, small-pox tuberculosis, Diphtheria, tetanus and whooping cough.

b) Anti-tetanus immunization for mothers

c) Provision of polio vaccination to children below three years

v) School health examination for the children between the ages of 3 and 6" (as part of the Silver Jubilee year, the Indian Medical Association has submitted to the Government a proposal for school health scheme now under consideration by the Education Department)

vi) Care of the handicapped children with the help of the staff of Viklary Bhavan.

vii) Intensive health and nutrition education service including health films shows, talks to be organised in that area.

viii) Supplementary feeding programme to school-going children upto 6 years from low income families, and expectant mothers.

ix) Nutritional supplement to be given at the centres to vulnerable groups.

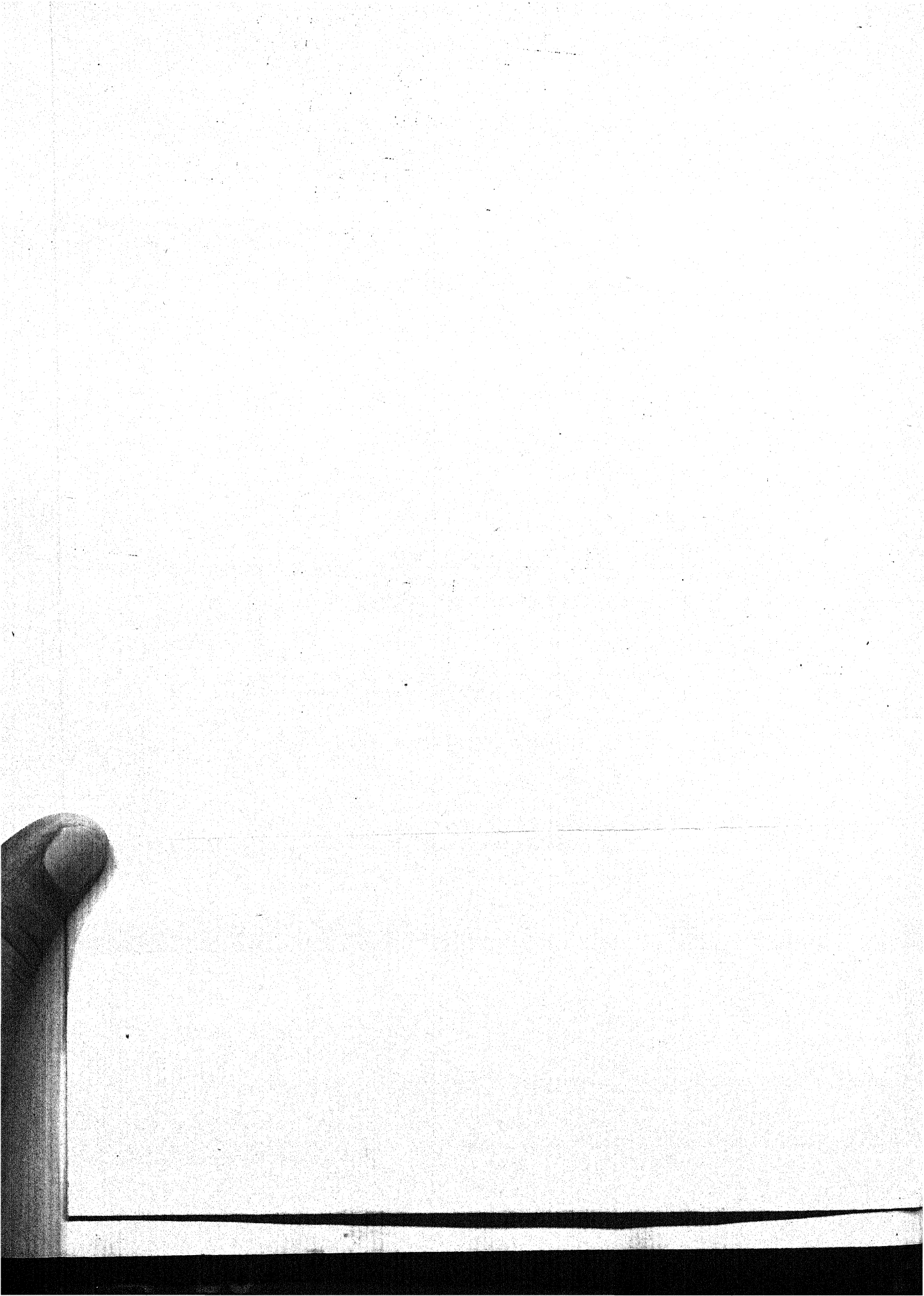
3.30 Services divisions:- The Department of Health envisages the following patterns:

i) Health check-up through the Indian Medical Association

ii) Students of Patna Medical College will be involved for health check-up and correction of defects as part of their urban field practice. Other colleges also may be later incorporated.

iii) Immunization through Patna Municipal Corporation and Director Public Health Institute.

iv) Polio vaccination to be done by the staff of the MCH Centres.



v) Case of the handicapped to be done by the Staff of Viklang Bhavan.

vi) Pathology examination will be conducted in the MCW Centres.

The BalKendra

3.31 People living in slum areas and those newly arrived migrants in a city have usually a greater feelings of security and confidence at the neighbourhood level. Hence a decentralised mode of delivery of services is of greater utility. The alternative is to concentrate all services at the MCW and UFP Centres.

3.32 Integration of Health Education and Community participation can be achieved by decentralised function, the organisational support being given by the MCW and Urban Family Planning Centres. The Balkendras couples the education and health and community function. It is based on the principle that a smaller, face to face group is more effective in the delivery of services. A small group atmosphere can generate greater local interest and involvement.

3.33 The Balkendras are viewed as multi-purpose units which will also be rallying point for the neighbourhood and a link to the primary schools. The following are its structure and functions:

i) There is to be twenty five Balkendras in all the five wards, with a larger number of Balkendras in Wards 3,5, and 11 (as illustrated in the accompanying chart).

In the project area the number of households in 1971 for the five wards are as follows:

Ward 3	12757
Ward 5	1327
Ward 7	2086
Ward 8	3143
Ward 11	3205

The projected child population of the project area in the age-group 0-3 and 4-5 years is as follows:

	1971		1981	
	0-3 yrs.	4-5 yrs.	0-3 yrs.	4-5 yrs.
Ward 3	1716	857	2138	1093
Ward 5	778	388	970	496
Ward 7	1075	538	1339	684
Ward 8	1558	778	1940	992
Ward 11	1625	815	2022	1034
Total:	6752	3376	8409	4299

3.34 Since the MCW and Urban Family Planning Centres are to be looked in Wards 5 and 8 the location of the sub-centres may be distributed in terms of the following criteria:

i) Most deprived pockets of the wards
ii) Wards having larger family size
iii) Wards of a wider area
iv) Wards having a higher number of children in absolute terms
v) Wards having a a greater child mortality rate.

On the basis of some of these criteria one may see the distribution of Balkendras in the following manner.*

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* Exact location is subject to such factors as accessibility, availability of convenient location and other factors.

	Household Size	Area (in acres)	Balkendras	Location of MCW and UFP Centres
Ward 3	6.8	271.1	8	-
Ward 5	6.3	95.6	4	Tibbia College
Ward 7	5.6	120.5	5	
Ward 8	5.3	50.0	3	Lady Syphton
Ward 11	5.5	104.5	5	
			25	

ii) Each Balkendra is to service an average 250 children below the age of 6 years and about 500 families.

iii) An auxilliary nurse midwife and basic health worker (male) together with an Anganwadi assistant and nutrition assistant will constitute the pivot of the coverage in each neighbourhood of approximately 500 families.

3.35 Functions

i) The Balkendra is to combine a minimum programme of recreation for four hours daily with health checks and nutrition supplement. The recreation and socialization programme is to be conducted by an Anganwadi assistant.

ii) Family contacts are to be made and family folders and statistics is also maintained.

iii) Information on environmental problems are to be gathered and referrals made to the project authority.

iv) Intensive family planning work among the families in the neighbourhood is to form an integral part (500 families)

v) There will be at least one visit by the Medical staff from the MCW to each Balkendra every week in rotation, and one visit at least every month by the paediatrician and the dentist, the family planning extensive workers and family plaming workers will visit homes in close liaison with the Balkendra based ANM and MH workers.

vi) Health and community education is to be geared to the Balkendra level.

vii) Referral and follow-up of children through MCW and UFP centres and from specialised hospitals, is to be a routine function.

viii) Immunization, vaccination etc. to be delivered at the Balkendra level.

ix) The Anganwadi assistant will maintain liaison with the primary school, specially with Class I teachers.

x) The Balkendra staff shall organise volunteers at the Balkendra level to carry out such functions as creches for working mothers, assisting the Anganwadi teacher etc.

xi) Community work such as organizing and conducting literacy classes, vocational guidance etc. is to be conducted at the Bal Kendra Centre.

Proposed Staffing Pattern

3.36 The following staff pattern is envisaged by the Bihar State Government, Health Department for the two MCH Centres.

	Scale of Pay Rs.	Cost for the first year Rs.
4 Medical Officers (2 in each Centre - one female and one male)	415.00	19,920.00
A paediatrician and a Dentist (for both centres)	415.00	9,960.00
2 family planning MCH extension educators	115.00	2,880.00
2 Family Planning female extension educators	160.00	4,176.00
Family Planning Male Worker	115.00	2,760.00
Family Planning Female worker	115.00	2,760.00

	Scale of Pay	Cost for the first year
Store-Keeper-cum-Accountant 2	105.00	2,520.00
Attendant 2	70.50	1,700.00
Auxilliary Nurse Midwife (Domicilliary service) 20	115.00	27,600.00
Basic Health Worker 20 (Male)	105.00	25,200.00
Peon (2)	70.50	1,700.00
Rickshaw Pullers (2)	70.50	1,700.00

3.37 It is the decision of the health department that except for the 20 Auxilliary Nurse midwives, 20 Basic Health Workers (Male) 2 peons and Rickshaw pullers, the recurring costs of staffing all else, will be borne by the State Government. Further five additional auxilliary nurse midwives and five basic health workers have been proposed to augment the 20 ANMs and 20 BMWs. The total estimated costs of the Health proposals are given below:-

Recurring (Annual)	Cost
Pay and allowances for 25 Auxilliary Nurse midwife (domixilliary service) scale of pay 115.00	34,500.00
Pay and allowances of 25 Basic Health workers (domicilliary service) Scale of pay Rs. 105.00	31,500.00
25 Balkendra Assistants Rs. 100.00 p.m.	30,000.00

	Cost
2 Balkendra supervisors for 25 Balkendra assistants Rs. 150/- p.m.	3,600.00
Rent for 25 Balkendras Rs. 100.00 p.m.	30,000.00
2 Peons Rs. 70.50 p.m.	1,700.00
2 Rickshaw pullers Rs. 70.50 p.m.	1,700.00
Drugs, nutrition tablets, polio vaccines, medicine for a year (2 centres and 25 Balkendras)	50,000.00
Additional expenditure fo nutritional supplements for 50 children in each Balkendra (200 children being the maximum provision for applied nutrition programme).	3,250.00
Health Education	5,000.00
Contingencies (2 centres)	5,000.00
Total:	Rs. 1,96,250.00

Non-recurring	Cost
Clinic equipment per centre	40,000.00
Audio-visual aids and other equipments	55,000.00
Pathology equipment Refrigerator Kits for ANM	50,000.00
Equipment for 25 Balkendras at Rs.1,000 each	25,000.00
Total:	Rs.1,70,000.00

Nutrition

3.38 Nutritional problems in Patna cannot be over-rated. In a survey conducted in Patna, the birth-weight for boys was only 2714 grams and for girls it was even less than 2672 grams.[13] Although no data is available for Patna, it is known that about 33.0 per cent of infant mortality in the country is due to pre-maturity. Similarly, toddler mortality is also high, thus in India while children in this age group 1-5 years constitute about 16.5 per cent of the total population, death within this age-group constitutes 40.0 per cent of the total deaths in the country and "nutrition is a major factor in the higher toddler mortality rates." Further longitudinal studies indicate that episode of scarce-protein calorie mal-nutrition during early life might lead to a crippled generation. In Patna city it is possible that these conditions may even be more severe.

Special Nutrition Programme

3.39 In Patna City only 104 nutrition centres are organised presently in slum areas. The Government of India has recently directed that these be expanded to 135 centres during the financial year 1972-73. The greatest weakness of the special nutrition programme is that is alienated from institutional structures. It is, therefore, proposed that they be integrated, atleast in the project area with the health, and education

13. C. Gopalan and K. Vijaya Raghavan - Nutrition Atlas of India, National Institute of Nutrition, ICMR, 1969, p. 68

programmes in the project area. In doing so there can and will be adequate health supports as well as follow-up. Further, it can integrate nutrition education services to mothers as well, since each Balkendra is to service 500 families and 250 pre-school children.[14]

3.40 The special nutrition programme of the Social Welfare Department and whose thrust is mainly urban slums and tribal areas is based on the assumption that the weakest and the most vulnerable are located here. The programmes aim at supplying supplementary nutrition consisting of 200 calorie. 8-10 grams of protein for the children who are 0-1 year, and 300 calories and about 12 grams of protein for children between the ages of 1-3 years. This age-group has been further revised ~~to include 0-3 years~~. It is planned that nutrition services should be extended to pregnant and breast feeding mother. The costs are worked out on the following basis (per centre of 200 children).

Recurring

1. 18 paise per child
2. 25 paise per breast feeding and pregnant mothers' per day
3. 2 paise per day for transport, honorarium to organise
4. Rs.10 to assistant
5. Rs. 12 miscellaneous.

Non-recurring

1. 250 rupees for utencils.

The maximum number of children to be served is 200 children in urban area.

14. Ibid. p. 76

3.41 The Patna Municipal Corporation, Bihar State Welfare Advisory Board, Grain Gole Sivek, Teachers of primary school, All India Womens Conference are the agencies in Patna who are involved in the applied nutrition programme. At present it is not fully known how many applied nutrition centres are run in the project area except that of the following:

Lokeshwari High school

All India Womens' Conference - Kadam Kuan and Lohnipur

Charka Samiti

Nutrition Education

3.42 Nutrition education aiming at maximising present food budget of families is in order. This in itself should not be viewed as a substitution for outright assistance. It is generally considered that the poor pay more for food because they cannot afford the economies of bulk buying. There is a daily retail consumership. The retail shopkeepers exploit the poors both through price likes and in selling poorer quality food. Further present wage scales, combined with larger families are simply not enough to provide a balanced nutritional diet even if the mother was best informed on nutritional matters. Survey of belief systems in foods and consumer patterns are needed. This may become part of the nutrition education.

The estimated costs for the year are as follows:

	Recurring (annual)
Provision for	
Orientation course on nutrition to children and teachers	
School and project staff including conveyance allowance 10 teachers each year (50 participants)	1,000.00
Nutritional Education -	
Pay and allowance of 2 extension workers 300x12	7,200.00
For collecting weekly cost index in project area and to organise consumer centres.	10,000.00
Rs.	18,200.00

Health Education

3.43 In Patna city there is a great need for health education. The population migration to the city from essentially rural areas need adjustment to special aspects of everyday life. In Patna city a well articulated health education programme can effect enormous changes.

3.44 In the Balkendras health education can be informal and formal and can be specifically directed to (i) expectant mothers (ii) newly married couples. After delivery, nutritional care of children, feeding procedures and inoculation and immunization are some of the functions. Health education can be carried through group discussions during health checks, demonstration and incentive programmes such as baby shows etc. The Lady Syphton and Tibbia College centres can itself initiate programmes through the Balkendras.

3.45 The other types in the use of mass media by the MCW centre can also be a part of the environmental health programmes. But this can be useful if adequate number of latrines, urinals and public bathrooms are built, garbage and night soil regularly removed. The Corporation needs to systematically plan on the Education of the citizens in keeping their environment.

Education

3.46 The twenty five Balkendras which combines to provide minimum package services for pre-school children, including special nutrition feeding, immunization, health care including referral service, nutrition education of mothers, family planning, environmental referral service and community involvement also has an elementary but basic pre-education and recreation components.

3.47 As stated previously, the Centre is to be staffed by Balkendra assistants who will have training in both health education and recreation areas for pre-school children. She will be a local woman preferably from the same neighbourhood having atleast primary school education. The other qualifications will be the suitability of the person working with young children, and she will have training in both health and education.

3.48 Since Patna has very few trained people to deal with pre-school children, it is proposed:

i) A model training centre should be started earlier than the project.

ii) This model training centre can be located in the building next to the Lady Syphton Centre.[15] The whole complex can later be developed into a community centre and for the training of personnel to work in the project.

iii) The training and orientation of Balkendra assistants and lower primary school teachers can be initiated and supervised by the Kishore Dal.[16]

3.49 The training programme must be inter-diseiplinary and people should be trained at different levels:

i) The qualified level should comprise personnel such as the supervisory staff and primary school teachers.

ii) The auxiliary level would comprise of mothers and young women who are volunteers and Anganwadi assistants. This auxiliary personnel would be supervised and brought upto date by the qualified personnel.

iii) On a short-term basis already existing voluntary institutions must be reinforced.

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15. The building is to house the Lady Health Visitor but is presently vacant. It has the Binodanandan park close to it and also has a big compound. Its project training centre, therefore, has many operational advantages. One may also consider the location of the project administration officer in this building.

16. Kishore Dal is a longstanding local voluntary organisation having considerable experience in pre-school children programmes. It is located within the project area in wards.

3.50 The estimated cost for running this Centre is as follows:

	Recurring	Non-recurring
Hon. to Instructors	500.00	
Equipment and Charts	-	1,000.00
Running the Centre	1,000.00	-
Total:	1,500.00	1,000.00

Primary School

3.51 The primary school education if particularly the general quality and awareness of a greater number of our citizens is to be revolutionist; needs particular attention. While it is conceded that the present coverage is to be extended the quality of existing coverage is also to be examined. In the blue print for the education in the 5th plan the Education Ministry has stressed levelling of variations but not of quality.[17] Each phase of a child's development should reflect the link to the next phase. The quality of pre-school children, therefore, has tremendous impact on the quality of children in primary schools. If the education is to be relevant and purposeful then conceivably one may visualise a graduate of the middle school branching out anything of the following areas:

i) Higher education,
ii) Vocational or technical schools
iii) Job training, and
iv) Unskilled labourers.

17. Approach to Fifth Five Year Plan.

3.52 Good purposeful primary school education can and will improve the quality of these areas and one can optimise results if the opportunities created both within the primary school system and open the educational and technical demands of the society. Costs and benefit calculations can then have a greater meaning.

3.53 The education department of the Patna Municipal Corporation needs considerable structural alterations. The Patna Municipal Corporation may look critically into the recommendations made by the Bihar State Institute of Education in the recent study of the Patna Municipal Corporation School.[18]

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18 The Study recommends the following:

i) The establishment of a school board, and stopped by a Secretary of previous educational experience.

ii) Establish an educational fund

iii) Corporation schools be administered by the District Educational Officer, who should be responsible for education in Patna Municipal Corporation school.

iv) The Director of Public Instructions and S.D.O. should inspect and evaluate education in school.

v) Educational opportunities should be expanded because there are 87 surplus teachers (33,611 girls and boys are enrolled in Patna Municipal Corporation schools and there are 1,208 teachers. If the standard is to be 1 teacher to 30 students, then the total number of teachers needed would be 1,121. At present there are 1,208 teachers).

vi) In the age-group 6-14, 41,000 receive no education in PMC/should fully discharge the obligatory responsibility and if necessary should obtain assistance from State Government.

vii) Encourage children from families of low income level to come to school and send teachers to persuade.

viii) There are 7 attendance officers, these officers should help in getting children come regularly to school.

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3.54 Further, at present the education department has considerable scope for expansion of its student population without any difficulty. Even within the project area where there are 146 teachers to 3,523 students, the teacher student ratio is low. On the basis of a stand of 1:40 students at the primary and 1:30 students at the middle school level there is scope for an expansion of atleast 1,000 students. An imaginative concerted use of the teachers supplemented by teaching aids should qualitatively and quantitatively improve and expand primary school education.

3.55 There is no specific proposal for the Corporation to break the current situation of high wastage and stagnation figures in the Corporation schools. This is a paradox considering that the teacher student ratio is well below the standard

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18. contd.

ix) There should be atleast ten school buildings built every year.

x) Patna Municipal Corporation does not provide any scientific kits to its school. Atleast 15 middle schools should receive scientific equipment.

xi) Middle school science teaching should be done atleast by I.S.C. or degree I science graduate. In lower and upper primary the teachers should be atleast matriculate in science subject.

xii) Out of 1,208 only 50 teachers have science education in their matric stage. Out of 155 schools 100 schools have no science teachers.

xiii) There are no audio-visual equipment

xiv) Cleanliness in schools is necessary and should be maintaine

xv) Meeting between parents and teachers should be encouraged.

xvi) Areas which have no schools, should have schools.

xvii) Recreational and park facilities should be developed.

set by the Education Department of the Patna Municipal Corporation itself.[19] The role of the attendance officer and his qualifications need complete assessment and reorganisation.

Primary and Middle Schools

3.56 As stated earlier the Patna Municipal Corporation bears obligatory functions of providing primary education for the age-group 6-11 years in the city of Patna. At present there are 9,778 children of this age-group, in the combined wards of the Project Administration. Out of this 3,523 (36.00 per cent) are presently enrolled in school. This is slightly higher than for the city.[20] However, there are variations in enrolment patterns within the wards.

Ward	Total No. of children (6-11)	Students enrolled	As percentage of child population in the Ward	Number of schools (LP, UP, middle)
3	2,467	1,199	47.6	5
5	1,586	297	18.7	2
7	1,227	470	38.2	3
8	2,053	838	40.8	4
11	2,445	719	29.4	5

Thus Ward 5 and 11 have enrolments well below the city average. The reasons for this need further assessment. However, some tentative questions may be raised:

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19. According to a written communication dated 9.9.1972 Dy. Administrator, Patna Municipal Corporation, the teacher-student ratio is 1:40 for primary schools and 1:30 for middle schools.
20. According to the Bihar State Institute of Education Survey, the percentage of children carried by the Corporation schools in the whole city is 32.0 per cent.

i) Is there any relationship between a community that is of an unsettled character (as indicated by a low ratio of female to make population) and school enrolment.

ii) Is there a relationship between the economic level of the people of the area and school enrolment.

3.57 Inadequacy of school facility may be a reason particularly in Ward 2 where for a population (children) of 1,586 only two schools exist. This raises the question of the movement of children going to school and such information is essential. One may categorise the children according to their schooling patterns.

i) Children who live in the project area and go to school in their own wards.

ii) Children who live in the project area and study within the project area.

iii) Children who live in the project area and go outside the project area to other schools.

iv) Children who come to school within the project area but live outside the community of the project area.

v) Children from within the project area and go to to private schools, and

vi) Children who are not in the educational stream.

3.58 There are 12 primary and middle schools run by the Corporation within the project area (page 83) of these 5 schools are in rented building.[21] Because of space difficulties, the schools are run on shifts with the morning shift

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21. One of these is the Binuta Bihar Middle School, which has been recently donated by a well-known physician. The building is specifically built as a school building with and auditorium.

(6.30 a.m. to 11.00 a.m.) for girls and day shift (11.00 a.m. to 4.15 p.m.) for boys and higher classes. The following table gives the break up of schools and total children attending at the three levels of primary schools in the project area:

	No. of schools	Children Attending in			Total No. of children
		Morning Shift	Day Shift	Single Shift	
Lower Primary School	2	85	-	33	118
Upper Primary School	5	262	-	423	685
Middle School	12	825	1223	672	2720
Total:	19	1172	1223	1128	3523

3.59 There are seven schools (shifts) exclusively for girls, of which 5 are middle schools, and one each of lower primary and upper primary. The project area has a greater number of middle schools with a larger proportion of students than in the lower and upper schools. Young children cannot travel very far to schools and hence a smaller number of primary (lower and upper) may be a handicap. This deficiency needs further assessment.

Teacher Ratio

3.60 As stated previously the general standard of Corporation schools is to have 1 teacher to 40 children at the lower primary school level and 1 teacher to 30 at the middle school level. However, the actual average teacher student

ratio in the project area schools is 1:24. Hence there is considerable scope for fuller utilization of teachers by an increase in students without an increase in new school buildings. Further in the Corporation schools in the project area there are more trained teachers than untrained as illustrated in the following table:

Ward	Student No. to one teacher	Trained teachers	Untrained teachers	Total
3	23	51	1	52
5	23	14	0	14
7	25	19	0	19
8	25	24	6	30
11	24	30	1	31
		138	8	146

Most of the teachers are untrained in Ward 8. This may be because the medium of instruction is Urdu in the school in this area.

School Facilities

3.61 Most of the school buildings are in deplorable condition. The following table gives an indication of the school accommodation for each class.[22]

22. According to a written communication dated 9.9.1972 from the Dy. Administrator, Patna Municipal Corporation.

Name of school and shifts	Management of school building	No. of rooms	Size of Each	No. of classes	No. of Verandas	Play-grounds
1. Kabigahia (middle) 2 shifts	Corporation	4	24'x10'(2)	7	80'x9' (1)	4,500 sq. ft.
2. Gadadhar Middle 1 Shift	Corporation	6	13'x7' (2) 20'x7' (2) 8'x6' (2)	7	31'x7' (2) 16'x6' (2) 18'x9' (1)	None
3. Lall-ji-Tola (middle) 2 shifts	Corporation	2	20'x15' (2)	7	40'x10'(1)	8000 sq. ft.
4. Goriatoli Upper Primary 1 Shift	Rented	1	10'x8' (1)	5	30'x10'(1) 20'x15'(1)	1000 sq. ft.
5. Salimpur Ahra (middle) 3 shifts	Corporati Corporation	5	20'x15' (5)	7	60'x6' (1)	2000 sq. ft.
6. Darjitola (Middle) 1 Shift)	Corporation	4	17'x12' (4)	7	17'x12'(4)	200 sq. ft.
7. Bhawar Poker (upper primary) 2 shifts	Corporation	5	20'x15' (5)	5	25'x15'(5)	5000 sq. ft.
8. Sabzibag (lower primary)	Rented	1	15'x10'	3	15'x5' (1)	-
9. Lohanipur (Middle)	Corporation	7	22'x18' (7)	7	25'x4' (1)	5000 sq. ft.
10. Prithvipur Lohanipur (upper primary)	Rented	2	15'x14' (2)	5	20'x6' (1)	100 sq. ft.
11. Vanita Bihar (middle)	Rent free	5	10'x10' (5)	7	Hall 40'x30'	200 sq.ft.
12. Mohmoodi Chok Upper primary	Rented	1	12'x8'	5	20'x12' Hall	3000 sq. ft.

3.62 Thus except in one school in Ward 11 all the rest are deficient both in class rooms, and in the size of class rooms. The deficiency ranges from as much as 4 rooms maximum to 1 room. Besides most schools do not have sanitary facilities and have leaky roofs and damaged windows. As an example, ward 7 which is one of the most deprived neighbourhoods of all, 3 schools - 2 middle and 1 lower primary - located on the banks of a wide drainage canal with a slow moving sludge. The school has kacha floor and roof, and there are no drinking facilities, no latrine no playground and no electricity. Most of the children, of this school belong to backward class families and their parents are sweepers. The school is altogether depressing with no teaching aids and no science teaching.

3.63 The cost of minimum renewal and expansion of some of the building is expected to be high. The following is the financial estimate:[23]

	Rs.
1. Proposals for additional rooms	6,66,500.00
2. Sanitary and water facilities	70,000.00
3. Library books	15,500.00
4. Science Apparatus	15,000.00
5. Teaching aids	15,500.00
6. Furniture	79,000.00
7. School uniforms	1,42,300.00
8. Mid-day meals	6,35,820.00
Total:	16,39,620.00

23. According to proposals from the Deputy Administrator, Patna Municipal Corporation dated 9.9.1972

This cost estimate has been scrutinised and reviewed, and the following estimates are provided:

1. Additional rooms proposed (a total of 30 rooms in six schools) 2. Renovation and repairing (38 rooms in 7 schools)	Rs. 2,00,000.00
3. Fencing (6 schools)	
4. Sanitary and water facilities	45,000.00
5. Library books	15,900.00
6. Science Apparatus	15,000.00
7. Teaching Aids	15,000.00
8. Furniture for keeping equipments	10,000.00
9. Provision for Salimpur Ahra School	10,000.00
Total:	3,10,500.00

3.64 In addition, it is proposed that particular attention to expansion and extension to Salimpur Ahra School in Ward 7 need to be made as conditions there are, as described earlier, at its worst. Therefore, a special provision of Rs. 10,000.00 is being made for this school.

Refresher Courses and Orientation to Teachers

3.65: Primary and middle school wastage and stagnation rates have already been described. Also none of the Patna Municipal Corporation teachers at lower primary, upper primary and middle school level have received any refresher courses. Out of a total of 146 teachers only one teacher seems to have had some sort of refresher course.[24] The motivation and interest

24. Ibid.PP.84

of these middle class teachers towards children from poorer classes needs consistent systematic assessment, weeding training and rewards should be institutionalised. Such needs must be to be carefully identified and orientation to teachers are to be given on the basis of such information.[25]

3.66 At the middle school level children who are in school needs careful nurturing to sustain their interests There are very many opportunities for the immediate gratification of this age-group children, for becoming as errand boys, kitchen helps and hawking and as porters in vegetable market. The pull of the middle school should be strong enough to deter children from dropping out of schools. For these, considerable attention is to be paid to the following:

i) The provision of good teaching aids including science kits supportive service like coaching classes, etc.

ii) Special coaching classes be organised in cooperation with N.S.S. programme and college student unions. One college student volunteer may have 2 to 3 students to supervise, Recreational programme may also be arranged conjointly. This enables the first generation learners to have other models before them. Most of the children are first generation learners, their parents having no /experience regarding schooling. Orientation to parents and students is not only desirable but necessary if wastes are to be avoided and benefit maximised. The project administration may set up a programme of teacher parents orientation through lectures and appropriate means and may form a /communication continuous means of communication throughout the school year. The teacher; specially the younger and more recently trained teacher may be trained

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25. Experience in other countries have shown that older and middle class teachers find it difficult to communicate with children from low income families.

to encourage parents by home visiting. They may be given credits towards their career as well as some honorarium.

High Schools

3.67 The average of children in schools in the age-group 12-16 reflects the low percentage in primary school level. The estimated percentage of children in the age-group 12-16 is 12.5 per cent in 1971 and is expected to go down to 10.9% of the total population in 1981.

3.68 Of a total of 2,383 children in the project area in the age-group 12-16, 1,484 were being covered that is 26.0 per cent of the children of this age-group were enrolled in schools. The following table illustrates the nature of these schools.

	Students	Trained teachers	Untrained Teachers	Government Schools	Private Schools
Boys School	1,484	27	35	1	2
Girls School	909	19	6	1	3

A greater number of high schools in the project area are private and only two are managed by the Goverment. Further all the schools are bunched together in Ward 11 and 7. It is doubtful whether children from low income families can afford to attend these private schools. Although there were 4 girls high schools in the project areas, girls in school constitute 23.3 per cent of the female population in this age-group.

3.69 The teacher pupil ratio, like at the primary school level is 1:27. Here too there appears to be some scope for expansion of student enrolment. Trained teachers consist of 72.4 per cent of the total teacher population. An interesting fact is that of the total 83 trained teachers 55.5% were trained female teachers.of high schools having the following facilities.

	Number of Schools	
Vocational Guidance	None	
Audio-Visual Aids	2	
Science Laboratory	7*	Playground 1
Library Kits	7	
Sanitary facilities	7	
Drinking Water Facilities	7	
Medical health check-up	6	
Recreation Facilities.	5	

Most schools have either a male or female visiting doctor and had medical check-up. This is specially evident in girls schools. Concerted efforts to club high schools for recreational purposes may solve the problem of play fields forhigh school children.

Study Centres

3.70 It is proposed that some centres at strategic points may be opened for home study both for middle school and high school. Undergraduate college students (Patna University) and the Patna Women College who are close by and the N.S.S. may be encouraged to volunteer. This would serve a double purpose of providing a model for the children and an opportunity for service for the college students. Some provision for covering

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* One Girl's School had only home science teaching but is to start science teaching shortly.

incidental expenses and books may have to be made. Accommodation may be sought in schools which are electrified or in private homes where space is donated. At the rate of 5 Rupees allowance to a college student for 2 sessions a week, it works out to 240 rupees for a year. (240x18) and Rs. 4,320 for 18 volunteers a year.

Working - Youth and Education

3.71 It is not known how many non-students are working. At present there are no evening schools for the working youth who may be interested in furthering himself. Such facilities need to be considered. The cumulative financial requirements for the above proposals is estimated as follows:

Heads of Expenditure	Recurring	Non-recurring
1. Primary schools (renovation and equipment)	-	3,10,500.00
2. Parent and teachers orientation	10,000.00	-
3. Study Centres	4,320.00	-
Total:	14,320.00	3,10,500.00

Phasing of Services at the Primary School Level

3.72 The total financial cost for education is Rs. 3,24,820.00 Since much preparation and groundwork will have to be laid, if results are to be optimised, it is suggested that phasing of both tasks and financial outlay be considered. The total bill may be looked in the following manner:

	1st year	2nd year	3rd year	4th year	5th year
Recurring Exp.	14,320	14,320	14,320	14,320	14,320
Non-recurring Exp.	62,100	62,100	62,100	62,100	62,100

3.73 The phasing of tasks may be in terms of priorities to be given to extension and strengthening of lower primary schools first to be followed by upper primary and then middle schools. However, subsequent to evaluation each year, the task of orienting parents and teachers at lower level initially and then to upper levels, plus the organisation of study centres for existing older students in the high school level may yield greater results, and at the same time will not neglect the needs of the existing students.

Vocational Training and Guidance

3.74 At present there is no statistics available on the number of young adults in the age-group 15-19 belonging to the non-school going group. The estimate is that it may be 40-50 per cent of all children of this age-grouc (15-19 yrs.) The vocational guidance conversion can fill the vital needs of assisting the young peoples inclinations, skills and converging it in the needs of neighbourhood in developing markets. He could identify and develop avenues of employment and help the young adult to train for these.

3.75 Work experience and developing training centres that will provide opportunity for training in skills need to be developed in order to break out of the present monotomy of service type. For example, some of the youngsters can be helped to train for some of the services needed by the project administration. Some of the work experience of the service type may be provided by the project administration itself. For girls there are some voluntary organisations such as the Mahila Shilpa Sadan, Mahila Vidya Kala Bhawan, Mahila Charkha Samithi, Bapu Smarak Mahila Charkha Samithi and Nan Vikas Parishad. Some of these already run craft training centres. A detailed survey of existing facilities and identifying the scope and needs of work to be economically viable numbers is needed.

3.76 It is important to utilise and supplement these needs to the needs of the project area. Attempts should be made to train and provide employment within the project facilities for young boys and girls from the project area. It is proposed to provide tools for self-employment for boys and girls and to develop vocational services. It is proposed that the Patna Institute of Design be involved. An estimate of costs are:

Recurring	Rs.
Vocational Guidance and Counselling	6,000.00
Stipends	2,000.00
Contingencies	5,000.00
Training materials and equipment	24,000.00
Total:	37,000.00

3.77 The foregoing proposals give an indication of the variety of issues of policy, programme and structure in various functional areas. Then again the levels of cooperation are also varied, between the ward, municipal corporation, state government and central government. A clear definition of what is meant by integration is needed. Conceptually integration need be financial programmatic administrative. If the aim is to complete the services, then process would be to develop an integrated pattern in the full utilization of the resources of municipal authorities, agencies (voluntary and public) programmes and disciplines, in coping efficiently with human and social maladjustment of children. It would also mean a careful spelling out of individual responsibilities.

3.78 From the point of administration few other fields require the clarity of goals, priorities, diversity and flexible combination of programmes. A nice articulation of programmes and services can only come about through proper planning of both men and materials and through honest evaluation.

3.79 The basic services specially in the primary school education will be provided by Patna Municipal Corporation. There is much need for experimentation and catering to individualised local interest and needs.

Community Centres

3.80 At present there are no community centres in Patna City. However, there appears to be a number of religious,

political and cultural organisations in the five wards whose scope and the type and utilisation are to be identified and participation obtained. Each of the Bal Kendra, it is hoped, will serve as a nucleus of a community centre through which community action and involvement may be mobilised and self-help projects initiated. It is expected that it is through the Bal kendras that the organic growth of the community centre will ultimately develop.

3.81 The Balkendras are expected to form the rallying point for the neighbourhood. Inter Balkendra Centre and Intra-Balkendra activities such as baby shows, sports competition, cultural and education fairs etc. organised by project administration are expected to be the approaches to community organisation. The Bal Kendras centre may in this sense be viewed as small community centres which will be effective in gaining maximum feasible participation, their activities when carefully coordinated by the project administration can help in organising the community to achieve the goals set by the people themselves.

Project Administration

3.82 To mobilise a community and to help its people through orderly procedures to meet their own needs through common action is in the ultimate analysis, one important factor in integration. The free expression of group viewpoint on programmes and policy, plays an indispensable role in the functioning of practical democratic government. If a complicated galaxy of governmental

institutional ties is to serve the needs of an infinitely diverse population, there must be free, continuing, multiple channels through which these needs are kept before the instrumentalities. These can be achieved formally in three levels.

Balkendra Committee

At the primary level the Balkendra Committee consisting of some parents and the staff shall constitute the neighbourhood committee.

The Area Project Committee

An area committee may be initiated consisting of representatives from the 25 Balkendras centres representatives of participating voluntary agencies and technical municipal personnel, school headmasters and physician of MCW and F.P. Centres. A subject-wise functional sub-committee may be organised by P.A.C.

Project Implementing Committee

At the city level to execute policies and resolve operational questions of coordination and cooperation a committee may be organised by the Secretary, Local Self-Government Department. Until a Mayor is elected, The P.I.C. may be chaired by either the Secretary, Local Self-Government. This Committee will consist of other members who in themselves are chairmen of functional committees, district level officer, such as health, education, town planning, nutrition as well as the chairmen of the PAC. The project implementing committee will meet once in four weeks.

State Level Coordinating Committee

3.83 At the State level the Secretaries of Health, Education, Industries, Employment, training the district magistrate, chairman, local self-government, Chairman, Patna Improvement Trust, Secretary to Bihar Council of Child Welfare, will constitute the State level coordinating committee. This

committee will discuss questions of policy and programming. It shall sort out operational snags and evaluated progress. Additional emembers of this committee will be the Chairmen of the project implementation committee and the Director of the A.N.Sinha Institute.

Technical Advisory Support and Evaluation

3.84 The City Unit of the A.N. Sinha Institute supported by IIPA (CMA) will associate itself in the development of the project. It shall mobilise support of specialised department in needs in answering the following questions related to the project.

i) Programmatic questions
ii) Methodological questions
iii) Dissemination of information
iv) Staffing pattern
v) Programmatic evaluation

The city units will also be responsible in assisting the Project Administration for organising training and orientation programme and project personnel at all levels.

The Project Administrator

3.85 The Project Administrator should be a professional with training in community organization and a knowledge of the dynamics of group and institutions. He will be the Ex-officio Secretary of all the three committees - the Project Area Committee, Project Implementation Committee, and the State Level Coordinating Committee. The Project Administrator will not only have responsibility for effective implementation of

the project but should be able to establish contacts and communication with the different departments and agencies, identify and develop resources, establish liaison between the various level committees, the city unit, governmental departments and institution and between the citizens and the project administration. He should also be able to use public relations techniques and obtain the cooperation and participation of the citizens of the Project Area.